Under the Patronage of H. E. Dr. Omar Al-Razzaz
The Prime Minister of the Hashemite Kingdom of Jordan

The Arab Division of the International Academy of Pathology
In Collaboration with the Jordanian Society of Pathologists

The XXXII Congress of the International Academy of Pathology

The 30th Congress of the Arab Division of IAP

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Dead Sea – Jordan
The XXXII Congress of the International Academy of Pathology

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ABSTRACTS
of
Posters
&
Oral Presentations

All Abstracts are in Alphabetical Order based on Abstract Number
Posters'
Abstracts
### SESSION No. 15.10.2018 & 16.10.2018

**ABSTRACT TITLE:**

**Malignant gastrointestinal neuroectodermal tumour in a 19 years old Sudanese girl**

**ABSTRACT TEXT**

Objective: To subtype a malignant small intestinal tumour in a 19 years old female, who presented with intestinal obstruction.

Methods: Histological sections from paraffin embedded blocks of a panel of immunohistochemistry including S100, SOX10, ER, P53, CD10 and DOG1. FISH to confirm the translocation

Results: At first glance the appearance closely mimicked low-grade endometrial stroma sarcoma. However, the immunophenotype (S100+, SOX10+, ER-, PR-, CD10-, DOG1-) excluded this possibility and instead suggested GINET which was then confirmed by presence of the EWSR1 gene translocation by FISH.

Conclusion: GINET should be included in the differential of any unusual small intestinal neoplasm as histology-tailored therapeutic options are becoming available for these rare entities.

Policy of full disclosure:

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**SESSION No. 15.10.2018 & 16.10.2018

**ABSTRACT TITLE:**

**B-cell non-Hodgkin’s lymphoma in Sudanese patients clinico pathological study**

**ABSTRACT TEXT**

Objective: This study was conducted to classify Mature B-cell type non Hodgkin lymphoma (BNHL) according to WHO classification using immunohistochemistry and to investigate its clinic-pathological pattern among Sudanese patients.

Methods: It was a descriptive prospective two parts study conducted at Radio-Isotope Centre, Khartoum (RICK) from 2008 to 2014. The first part included 1169 patients, based on RICK cancer registry to retrieve the demographic data. The second part was conducted on suspected cases of NHL referred to RICK histopathology department. The H&E stained slides of each case were examined initially. Then the confirmed cases of BNHL (260 cases) were classified according to the 2008 WHO classification of neoplastic diseases of the haematopoietic and lymphoid tissue following immunostaining of sections cut from formalin-fixed, paraffin embedded (FFPE) tissue blocks with the lymphoma panel of antibodies.

Results: The study showed that NHL is predominant cancer of male adults. Fifty percent of the paediatric cases occurred between the ages 2-5 years. The Majority of our cases presented with nodal disease. Extranodal affection showed no sex predilection but significant age distribution as it was mainly in children. If popular site was gastrointestinal tract (GIT) 48.4% followed by the head and neck. GIT extranodal BNHL showed different anatomical patterns between children and adults. The majority of most frequent subtypes in mature BNHL, as reported in WHO classification 2008, all appeared in our series, with the following frequency: Diffuse large B-cell NHL DLBCL 28%, Small Lymphocytic NHL 20%, Burkitt’s lymphoma (BL) 16%, Follicular Lymphoma 9%, Mantle Cell Lymphoma 5%, Marginal Zone lymphoma 1%. DLBCL is the predominant BNHL in adult and BL is the predominant one in children.

Conclusion: BNHL is one of the commonest types of cancer. The histological pattern and clinical presentation differ between adults and children. The morphological and immunophenotyping pattern are consistent with other studies. Different lymphoma classifications still exist in Sudan and it is high time to unify the classification of NHL according to WHO classification.

Note: IAP Bursary Application

Policy of full disclosure:
Abstract Title: Objective: Immune-therapeutic approaches to target the PD-L1/ PD-1 have recently shown great promise in treating patients with non-small cell lung cancer (NSCLC). However, coexistence of this biomarker with driver oncogene mutations (with targeted therapies) is poorly known. We investigated the association between somatic driver mutations and PD-L1 expression.

Methods: We retrospectively checked paraffin embedded tissue samples from 196 NSCLC patients, 167 adenocarcinomas, 9 squamous cell carcinomas, 5 neuroendocrine carcinomas, 4 adenocarcinomas in situ, and 11 non-small cell lung cancer no otherwise specified (NOS). The cohort included 108 small biopsies, 44 cell blocks samples and 44 surgical specimens. An immunohistochemical study for PD-L1 expression was carried out using the clone 28-8 (PD-L1 IHC 28-8 pharmDx, Agilent). Hybridization analyses for ALK rearrangements (Vysis ALK Break Apart FISH Probe RUO Kit, Abbot Molecular) were also carried out. Results: We found a PD-L1 expression > 1% in 48% of cell blocks samples, 36% of surgical specimens and 50% of small biopsies. EGFR mutation, BRAF mutation or ALK rearrangement were found in 25 samples. Within these tumors with molecular alterations PD-L1 expression <1% was found in 15 cases and 51% in 19 cases. Conclusion: Our results showed cell blocks samples are appropriated for PD-L1 analysis in daily clinical practice. No significant correlation was detected between PD-L1 expression and these driver mutations approved for targeted therapies. Policy of full disclosure: /
Objective: Infective endocarditis remains a silent killer in tropical countries where scarce resources prevent early and adequate clinical diagnosis for proper patient management. Our objective is to determine the cause of death in a patient with pre-mortem diagnosis of infective endocarditis.

Methods: Full autopsy was performed on a 43 year old male intravenous drug abuser who died of infective endocarditis. All organs were sampled and examined histologically. Gram stain was also done to confirm blood culture result.

Results: Autopsy findings include large vegetation on the mitral and tricuspid valves with ruptured left papillary muscle tip and mitral valve. Also noted are multiple emboli in the aorta and pulmonary arteries. There is wedge infarcts in the kidneys and severe pulmonary edema and congestion. Histology of the vegetation shows sheets of neutrophils and bacterial colonies admixed with fibrin. Bacterial colonies are gram stain positive.

Conclusion: This case proves that infective endocarditis remains a major cause of morbidity in intravenous drug abusers in the tropics. High index of suspicion in the early stages of the disease and early referral to tertiary centres are important for survival patients with infective endocarditis.

Policy of full disclosure: /
Objective: Introduction: Central Nervous System primitive neuroectodermal tumors (PNET) are a heterogeneous group of embryonal tumors. They have varying capacity for differentiation along neuronal, astrocytic and ependymal lines. PNETs that display features of the embryonal neural tube formation are termed medulloblastomas. These are rare tumors with only 36 cases recorded in the literature with the peak incidence between six to five years of age. Medulloblastoma presenting in the older age group is extremely rare, and only two cases have been reported. We report a rare case of cerebellar medulloblastoma in a 5-year-old woman, the first case to be reported in this age group.

Methods: Case presentation: A 55 years old women presented in November 2017, with left arm weakness and paraesthesia. She has normal blood pressure and normal pulse. All biochemical parameters were normal. She had no history of any medical diseases. Preoperative brain magnetic resonance imaging (MRI) revealed a large right parietal intra-axial dominantly cystic mass with non-uniform solid component having communication with moderate associated perilesional edema. Neuraxial imaging showed an extra-axial lesion with a minimal component of adenocarcinoma and BCL-2+.

Results: A complex karyotype is identified by a breaking point analysis using Fluorescence in situ hybridization (FISH) and fluorescence microscopy. The karyotype is a 46,XY with a minimal structural abnormality of i(5)p15.3q31. The tumor was also not treated with radiation.

Policy of full disclosure: / 

ABSTRACT TEXT:
Basaloid Squamous Cell Carcinoma of The Skin with Monster cells, arising from Syringocystadenoma Papilliferum

Objective: To document a rare case of malignant transformation of Syringocystadenoma papilliferum into squamous cell carcinoma with basaloid features.

Methods: A case report of a 50 years old man, presented with a right upper thigh mass of 7 years. Started as a very small lesion with watery discharge, gradually increased in size with associated serous and bloody discharge. On examination, the mass was located in the right posterior upper thigh, measuring 6 × 3 cm with dark discoloration and surface ulceration. A core biopsy revealed a Poorly Differentiated squamous cell carcinoma. A wide local excision of the mass was done. On gross examination, the specimen consisted of a skin ellipse (6.5 × 3 cm), with an underlying subcutaneous tissue, a central nodule is noted with a punctum. Sectioning of the mass revealed a well encapsulated nodule with variegated white tan cut surface and friable soft white tan material.

Results: A complex karyotype is identified, its composite karyotype: 57–79,XY,+4,+5,+del(5)(q33),del(5)(q12q31)x2,+7,+8,+8,add(8)(q22),add(15)(q22),+20mar(2p17)q14.1q31.1x2. The karyotype is complex with presence of several trisomies, few apparent additions/deletions and several markers with unknown origin. EWSR1 gene FISH analysis reveal monosomal EWSR1 gene.

Conclusion: Carcinosacoma of the gallbladder with extensive chondrosarcomatous component and associated complex karyotype

Objective: Reporting a rare case of carcinosacoma of the gallbladder with extensive chondrosarcomatous component, and associated complex cytogenetic karyotype.

Methods: Case report of a 39 years old male presented with sever intermittent pain in the right hypochondrion for the last 3 years. Abdominal examination reveals tender palpable mass in the right hypochondric region. CT reveals large irregular intraluminal polyposidal enhancing mass noted in the gallbladder measuring 11.5 × 9.5 × 5 cm with ill-defined interface lesion in segment 5 of the liver and extension to the rectum and peritoneal deposits. PET scan revealed metabolically active lesions in the liver and peritoneum. On laparotomy reveals a huge mass originating from the gallbladder and adherent to the liver and transverse colon and occupying most of the right hypochondric region with an extensively component of malignant cartilage, with massive intra-abdominal spread. The tumor had a highly complex karyotype with several trisomies, few apparent addition/deletions.
We could conclude that the walls of the AAs of patients with bicuspid valves without aortic dilatation at the time of surgery would have a favorable outcome. 70% of the patients were men, with a mean age of 57.5 ± 13.5 years, and similar clinical characteristics. During valve replacement surgery, a sample of AAs of 1.5 cm x 0.5 cm was obtained. They were fixed in 10% formaldehyde. The thickness of the wall was measured, processed for optical microscopy and stained with H & E, Masson trichrome and Alcian blue. To establish the G, the histopathological findings of the intimal, adventitial and media layer (elastic fibers, collagen and smooth muscle, proteoglycans and inflammatory infiltrate) were studied. G: without lumen; G1: 0-10%; G2: 11-25%; G3: 26-50%; G4: 51-100%. Thickness of the aortic wall: 0.4 to 4 mm with interval of 0.5 mm. Results: Our histopathological data show that 46% of the AAs presented an E between 1.5-2 mm and 42% of them corresponded to G3 with a percentage less than 50% of damage to the aortic wall. Conclusion: We think that the walls of the AAs of patients with bicuspid valves without aortic dilatation at the time of surgery would have a favorable evolution in the short and long term follow-up.

Policy of full disclosure: /
Objective: Fibrodysplasia ossificans progressiva (FOP) represents a rare disease of chronic heterotopic ossification of soft tissues. Methods: We presented three cases of FOP with clinicopathologic features diagnosed at our department since 2000. Results: All cases were females and they were diagnosed at the age of 9, 1 and 7 years old according to the order of application time. The first case diagnosed as heterotopic ossification with biopsy material that was composed of spindle cells and ossification areas and diagnosed as FOP with clinical, radiological and pathological findings. The initial biopsies of last two cases showed only spindle cells areas that diagnosed as rhabdomyosarcoma and myofibroblastic tumor respectively. Conclusion: The clinicopathologic correlation is very important for FOP diagnosis. Morphologically FOP has a wide spectrum of differential diagnosis of benign, malignant soft tissue tumors particularly in biopsy materials of the early lesions. Policy of full disclosure: /
VESTIGATED THE EXPRESSION OF GLUT-1 IN BREAST CANCER:

**ABSTRACT TEXT**

Objective: Adenoid cystic carcinoma (ACC) is a malignant neoplasm that originates from the major and minor salivary glands. It represents about 1-2% of head and neck cancers. ACC is a slow growing tumour with diffuse invasion and tendency to metastasis to the bone and lung. We present a rare case of solid variant of ACC presenting as diffuse enlargement of the tongue in an elderly female.

Methods: A 95 year old woman presented with enlargement of the tongue causing difficulty in eating and speaking, she also could not work for 2 weeks. A consult was sent by the dental and maxillofacial unit for FNAC (Fine needle aspiration cytology). On examination, there was diffuse enlargement of the tongue with no visible tumour on palpation. FNAC and subsequent biopsy of the tongue was done.

Results: FNAC showed singles and clusters of basaloid cells with dense fibrous tissue, hemosiderin deposition and mild lymphoplasmacytic infiltration. The small sized blood vessels within the nodules showed marked positivity for GLUT-1 and negativity for CD34, that indicates the absence of CD34-positive sinuses inside these nodules. These findings differentiate between CCH and SANT, as the latter shows dense fibrous tissue, hemodermal deposition and mild lymphoplasmacytic infiltration.

Conclusion: The morphologic appearance and immunohistochemical profile of this lesion is unique in our experience and represent a new category of vascular lesions in spleen, a splenic cord capillary hemangioma.

Policy of full disclosure: /

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**SESSION No.** P-02

**SESSION TITLE** Breast pathology

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<td>002</td>
<td>Ahmed, Syed Salahuddin</td>
<td>Poster</td>
<td>Singapore General Hospital Singapore</td>
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**ABSTRACT TITLE:**

Glucose transporter-1 (GLUT-1) expression correlates with higher histologic grade in triple negative breast cancers

**ABSTRACT TEXT**

Objective: Tumour hypoxia, a key factor in development of malignancy, leads to increased expression of a variety of proteins including glucose transporter-1 (GLUT-1) through hypoxia-inducible factor 1 (HIF-1) which enable tumour cells to survive the harsh tumour microenvironment. GLUT-1 expression is increased in triple negative breast cancer (TNBC) which refers to a subset of aggressive breast cancers lacking expression of oestrogen receptor (ER), progesterone receptor (PR) and human epidermal growth factor receptor 2 (HER2). These tumours are associated with poor prognosis, distinct metastatic potential and limited therapeutic opportunities. We investigated the expression of GLUT-1 in TNBC by immunohistochemistry (IHC) and correlated its expression with the clinical parameters.

Methods: A total of 296 TNBCs were identified. IHC using GLUT-1 (clone SPM498, Biocare CM408B) in a dilution of 1:25, was performed on 4-µm tissue microarray sections, GLUT1 expression was assessed in the tumour cell membranes. Disease free survival (DFS) and overall survival (OS) were defined as time from diagnosis to disease recurrence/death of breast cancer for events, respectively, and date of diagnosis to date of last follow up for censored cases. GLUT1 expression was correlated with clinicopathological parameters and clinical outcomes.

Results: Twelve cases were excluded due to loss of tissue. Using median H-score of 100, 103 (36%) tumours showed GLUT1 staining. GLUT1-positivity was significantly associated with high histologic grade (p<0.001). There was a trend of increased expression of GLUT1 in younger patients (p=0.0279) with increased tumour size (p=0.0913). GLUT1 expression did not adversely affect the DFS and OS.

Conclusion: GLUT1 expression was significantly associated with aggressive tumour traits in TNBC. However further studies are warranted to explore role of GLUT1 as potential therapeutic target in these aggressive breast tumours.

Policy of full disclosure: /
Objective: Inflammatory myofibroblastic tumor (IMT) is a distinctive neoplasm composed of myofibroblastic and fibroblastic spindle cells, accompanied by inflammatory infiltration of plasma cells, lymphocytes, and eosinophils. IMT’s rarely occur in the urinary bladder. It is important to distinguish this tumor from other malignant spindle cell tumors. Herein, we report a 6 YEARS old child who presented with 3 months history of vague abdominal pain with on/off fever and loss of appetite. Computed tomography showed large solid mass in lower abdominal cavity measuring 8 x 6 x 5 cm with suspicious paraaortic lymph nodes. Computed tomography guided biopsy showed features consistent with IMT. The patient underwent a laparotomy with resection of the bladder tumor, partial cystectomy, paraaortic lymph nodes biopsy and partial omentectomy. The resected tumor specimen revealed a proliferation of spindle-shaped cells on a background of plasma cells and lymphocytes. Immunohistochemical staining showed the tumor to be positive for anaplastic lymphoma kinase (ALK) and smooth muscle actin (SMA).

Methods: :

Results: :

Conclusion::

Policy of full disclosure:

Objective: Synovial sarcoma (SS) is a malignant mesenchymal neoplasm that rarely occur in the urinary bladder. It is important to distinguish this tumor from other malignant spindle cell tumors. Herein, we report a 6 YEAR old female with a past history of invasive ductal carcinoma of breast status post mastectomy 4 years prior to presentation to the urology clinic for evaluation of gross hematuria. A CT scan showed 1 cm mass in the right lateral bladder. The patient underwent transurethral resection of bladder tumor and subsequent cystectomy a month later. Microscopic examination of TURBT specimen showed a hypercellular spindle cell neoplasm, organized in poorly-formed fascicles in the wall of the urinary bladder. The cells had scant cytoplasm with hyperchromatic nuclei and brisk mitotic activity. Occasional necrosis and calcifications were seen. The cystectomy specimen showed a small focus of residual tumor at the transurethral resection site. No conventional urothelial carcinoma in situ or invasive carcinoma was present in either specimen. Immunohistochemical stains showed expression for TLE1, BCL2, and CD99 in tumor cells while AE1/AE3 pan-cytokeratin, GATA-3, CAM-5.2, CD34, S100, CD45, CD31, and desmin were negative.

Conclusion: The morphologic and immunohistochemical features seen in this case are that of synovial sarcoma. Pure mesenchymal tumors of the urinary bladder are rare. The diagnosis should only be rendered after thorough examination and exclusion of other tumors generic to bladder.

Policy of full disclosure: /
Infections mimicking malignancy: A teaching hospital experience

**ABSTRACT TEXT**

Objective: To evaluate the protein presentation of infections mimicking malignancy. This will serve to heighten clinical and pathological indices of suspicion and prevent unwarranted aggressive management.

Methods: A 19-year (1999-2017) review of all morphologically diagnosed infection-related lesions in which malignancy was clinically suspected was conducted.

Results: 364 cases of schistosoma hematobium-related lesions were diagnosed in the study period. Of 55 cases from the gastrointestinal tract one gastric, 8 colonic and 8 rectal cases were suspected to be malignant. Weight bearing stools (bloody) and endoscopic polyps seen in 100%, 58% and 25% were the most common features respectively. Malignancy was suspected in 23 (61%) of 38 genital cases and apart from firm non-tender organomegaly young age, predominantly below 20 years, characterized 15 of the genital lesions. Of 3 prostatic lesions PSA as high as 45 ng/ml was found while the single ovarian case was in a 30-year old female. An inguinal lymph node with suspicion of lymphoma was also found. History of episodes of hematuria was reported in only 39% of genital cases. Careful review and serial sections were required especially in gastro-intestinal lesions.

Twenty one cases of Actinomyces of the lower limbs and oropharynx were mistaken for melanoma, squamous carcinoma and sarcoma. Mean age was 33±17 years and limb swelling and ulceration were the most frequent findings.

Ten cases of atypical Mycobacterium tuberculosis mimicking malignancy included 3 testicular cases and 2 each from ovary, breast and uterus and 1 from the jaw. Mean age was 37±14 years. Of 3 fungal lesions one each of brain, skin, and bone. All were males with mean age 21±7 years. Conclusion: While careful pathologic evaluation is paramount for accurate diagnosis, clinical history of residence in endemic areas, male gender, young age and protracted history of illness are the most useful features when evaluating these cases.

Policy of full disclosure: /
SESSION No. | SESSION TITLE | AUTHOR | ABSTRACT TYPE | Co-Author (s)
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P-03 | Abstract No. 002 | Barbosa, Barbara | Neurosurgery | Sao Paulo Brazil
| Date | 15.10.2018 & 16.10.2018 | | | 
| ABSTRACT TITLE: | Impact of fine-needle aspiration in non-diagnostic and indeterminate thyroid nodules | | | 
| ABSTRACT TEXT | Objective: The objective of the present study is to assess the impact of fine-needle aspiration in thyroid nodules primarily classified as non-diagnostic and indeterminate, with the evaluation of the diagnostic resolution rate after the reassessment of the nodule.

Methods: We retrospectively collected all cases of thyroid FNA at our institution in the last five years that had one or more repeat aspirations of the same nodule, calculating the percentage of samples with change in the diagnostic category after the reassessment of the nodules. Additional collected data included gender, age and month interval between the repeat aspirations.

Results: One hundred and seventy-eight specimens from 167 patients (410F, 27M) with a median age of 56 years (range 11-90) were included in the study. In 155 samples, only one repeat aspiration was performed, with an 8-month interval on average. For the remaining 23 samples, two repeat aspirations were performed, with an average interval of 6 months between the first and the second procedures and an average of 12 months between the second and the third aspirations. Among the 86 cases primarily classified as non-diagnostic, 25 (29.1%) remained in the same category after the first reassessment and only 18 (20.9%) after the second repeat aspiration. Among the 40 indeterminate cases, only 10 (25%) retained its status after the second aspiration, with no change after the second repeat aspiration.

Conclusion: Repeat aspiration of non-diagnostic and indeterminate thyroid nodules had a positive impact in both groups, with diagnostic resolution rates of 80% and 75%, respectively. The present study therefore endorses the use of this technique in such cases, as preconized by the Bethesda System for reporting thyroid cytology.

Policy of full disclosure: | 

SESSION No. | SESSION TITLE | AUTHOR | ABSTRACT TYPE | Co-Author (s)
P-12 | Abstract No. 002 | Bashir Hassan, Fatima | Nephropathology | National Health Dept. of Histopathology Khartoum Sudan
| Date | 15.10.2018 & 16.10.2018 | | | 
| ABSTRACT TITLE: | Clinicopathological features of 108 cases of renal cancer in adult Sudanese patients | | | 
| ABSTRACT TEXT | Objective: Renal cell carcinomas are associated with high mortality and morbidity in developing countries. The objective of this study is to investigate the histopathological pattern of renal cell carcinoma, the clinical presentation, the mode of surgical procedure, grading the tumors by using Fuhrman grading and staging the tumors by using TNM staging system.

Methods: This is a descriptive retrospective case series study of 108 adult renal cancer patients conducted within the period from 2013 to 2015 from different histopathology departments in Khartoum. Data was collected from the patients request forms and patients files including personal, clinical and pathological data. Formalin fixed paraffin embedded blocks of processed histopathology specimens were recut, stained and re-examined by two histopathologists. The histopathological type, tumor grade and clinical stage of the patients were recorded.

Results: The study included 108 patients, 59 were males and 49 females, with a M: F ratio of 1.1:1.0. The youngest patient was 19 years and the eldest was 86 years. The clinical presentation included loin pain in 35.2%, abdominal mass in 31.4%, hematuria in 22.9% and 4.8% were incident finding during routine ultrasound examination.

Two types of surgical procedures were performed: nephrectomy and partial nephrectomy in 92 and 11 patients respectively. Eleven patients had needle biopsy only.

Microscopic examination of the slides identified 7 histological types of renal cancer. These were clear cell RCC in 71.2%, Papillary RCC in 18%, Sarcoidomatoid RCC in 8%, Chromophobe in 0.9%, Collecting Duct RCC in 0.9%, Transitional Cell carcinoma in 4.5% and Squamous Cell Carcinoma in 0.9%.

Using Fuhrman grading system showed grade II, III, I and IV in 48, 29, 16 and 12 patients respectively. Two histopathologists then evaluated two repeat aspirations.

Conclusion: Sudanese patients show a variety of histopathological features for renal cancer.

Policy of full disclosure: |
Objective: Germ cell tumors are predominantly found in the gonads, and the most common extragonadal site is the anterior mediastinum. Mediastinal germ cell tumors account for 15% of all mediastinal tumors in adults and 24% in children. Of the tumors of the anterior mediastinum, benign cystic teratomas have excellent prognosis after complete surgical excision.

Methods: We report a case of such rare tumor in a young adult female of 18 yrs old who presented with cough, chest pain and facial asymmetry that arises from melanocytes within the anterior mediastinum extending to right hemithorax. The mass was compressing the great vessels, adherent to chest wall, pericardium, and lung. Complete excision of the mass done. Patient underwent uneventful histopathology reported as benign cystic teratoma.

Results: Germ cell tumors are uncommon neoplasms that usually arise in the gonads. The most common extragonadal site is anterior mediastinum. It is estimated that only 1-3% of all germ cell tumors arise in the mediastinum. Germ cell tumors account for 15% of all anterior mediastinal tumors and 24% of all pediatric anterior mediastinal tumors. Teratomas are equally present in men and women with an age range from 1 to 73 years, and average age at presentation is 28 years. There is now general acceptance that extragonadal germ cell tumors represent malignant transformation of germ cell elements within these sites without a gonadal primary focus. A theory to account for extragonadal germ cell tumors is that they arise from pluripotential germ cells that are present but quiescent in extragonadal sites.

Conclusion: Complete excision of the tumor without any surgical complication is possible in most of the cases. Hence, these tumors can be cured by surgical excision. Policy of full disclosure: /
Objective: Customer satisfaction surveys are a routine device used to assess performance in many industries. Surveys are also routinely used in hospitals to check physician and patient satisfaction. While external proficiency testing assures that the laboratory's institutional and equipment are up-to-date and give accurate results, the data obtained through physician surveys helps design local guidelines and workflow best suited for that institute and its needs.

Methods: The survey questionnaire was made online with 15 questions in total and was electronically mailed to all Consultant and Specialist physicians in Hamad medical corporation. Around 3500 emails were sent out but only 105 surveys were filled in two months' time. The survey included questions pertaining to quality of histopathology services and information regarding the participant.

Results: The overall satisfaction was highest for Multidisciplinary presentations (96%) and lowest (77%) for timeliness of reporting. The overall satisfaction was above 90% for clarity and format, Diagnostic accuracy and pathologists' responsiveness to problems. Thirty six percent of the people rated MDT presentations as excellent while 46% of people thought overall quality of professional interaction was good. The areas of improvement as perceived by the survey (36%) were from internal medicine and half were members of multidisciplinary meetings (49%). The survey was aimed at senior doctors hence only consultants and specialists were requested. Seventy-one percent of the people were from Hamad general hospital, while rest were from the other hospitals under MMC.

Conclusion: Unlike biochemistry and microbiology laboratories, Histopathology lab staff maintains a close relationship with clinicians as it is not possible without adequate clinical information, orientation and radiological findings. Quality control surveys allows pathology staff to target areas most in need of improvement and place systems and measures that improve the clinician-pathologist relationship and maximize quality of histopathology services.

Policy of full disclosure: /
BRAF testing showed a high degree of association with amyloid goiter, a high cellular marker of RAS/BRAF mutations in surgical specimens. Liquid biopsy may become a powerful tool for innovative management of CRC patients providing minimal-invasive diagnostic procedures for the detection of molecular biomarkers.

Methods: 105 CRC patients (UICC stage I to IV) were included from the study. All patients harbored RAS or BRAF mutations (32%) in primary tumor material.

Fully automated liquid biopsy testing was performed by Idylla Biocalcitus System based on qualitative real-time PCR for expanded RAS and BRAF panels (21 mutations in KRAS, 18 mutations in NRAS and 5 mutations in BRAF) for all patients with known mutation and on 33 plasma samples of patients with unknown FFPE mutation status. NGS was performed in 10 patients to compare to Idylla retrieved results.

Results: Overall, samples from 32/35 patients with known RAS/BRAF status satisfied eligibility criteria. Results from Idylla RAS/BRAF testing showed a high degree of concordance with 14 in 17 plasma samples UICC stage I (94%) and IV (85%) with equivalent RAS/BRAF mutational status compared to FFPE. 11 plasma samples have been tested by NGS and showed concordance. In 12 plasma samples from UICC stage III and IV with unknown mutation status 6 (50%) show RAS/BRAF mutations analyzing Idylla and in 38 samples of UICC onc. plasma sample was positive in CDX2 analysis. Conclusion: Idylla real-time PCR assay for liquid biopsies is a sample-to-results PCR analyzing expanded RAS and BRAF mutation panels and compares favorably with NGS based assays as well as with standard-of-care tissue based mutation testing. It is a new option in routine clinical practice to complement tumor tissue genotyping in personalized treatment strategies by using plasma samples as a diagnostic target.

Objective: In colorectal cancer (CRC) all-RAS and RAF status is of predictive and prognostic relevance in disease management and the early knowledge may enable a more personalized treatment in particular with regard to targeted therapies. The current gold standard is the determination of RAS and RAF status in surgical specimen. Liquid biopsy may become a powerful tool for innovative management of CRC patients providing minimal-invasive diagnostic procedures for the detection of molecular biomarkers.

Methods: 105 CRC patients (UICC stage I to IV) were included from the study. All patients harbored RAS or BRAF mutations (32%) in primary tumor material.

Fully automated liquid biopsy testing was performed by Idylla Biocalcitus System based on qualitative real-time PCR for expanded RAS and BRAF panel (21 mutations in KRAS, 18 mutations in NRAS and 5 mutations in BRAF) for all patients with known mutation and on 33 plasma samples of patients with unknown FFPE mutation status. NGS was performed in 10 patients to compare to Idylla retrieved results.

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Policy of full disclosure: /
Amyloidosis of the urinary bladder: A case report

Objective: Amyloidosis is a heterogeneous group of disorders caused by deposition of misfolded proteins as insoluble eosinophilic material in the extracellular tissues of the body, leading to impairment of organ function. The amyloid deposits can be systemic or localized. Localized amyloidosis accounts for 10-20% of cases. It can be seen in many organs including the genitourinary system, most commonly as an incidental finding in the seminal vesicles. Urinary bladder involvement by amyloidosis is rare and a few cases have been reported in the literature.

Methods: Herein, we describe a case of localized amyloidosis involving the urinary bladder.

Results: The patient is a 72-year-old female who presented to the urology clinic for evaluation of urinary irritation symptoms. A large bladder mass was resected on cystoscopy and submitted to pathology. Microscopic examination revealed multiple fragments of bladder tissue lined by benign urothelium with underlying chronic inflammatory cells infiltrate. The lamina propria is markedly occupied by an abundant hyalinized, acellular extracellular material. A Congo red histochemical stain showed salmon-pink color on Congo red stain and apple-green birefringence on polarization.

Conclusion: The morphologic and histochemical features seen in this case are diagnostic of amyloidosis. Primary localized amyloidosis within the urinary bladder can cause a mass lesion and that may mimic neoplasia on cystoscopy. A higher level of awareness of this entity is required by pathologists and clinicians for accurate patient management.

Policy of full disclosure: /
ABSTRACT TITLE: Congenital malformations at the neonatal resuscitation of the maternity and neonatology center of Tunis : A year summary

ABSTRACT TEXT
Objective: Identify the main congenital malformations registered at the CMNT in 2016 to create a preliminary draft of an institutional register of malformation, in anticipation of a regional one.

Methods: This is a retrospective descriptive study conducted at the department of neonatology at the CMNT. It's a summary of congenital malformations registered at the CMNT during the year 2016 (from January 1st, 2016 until December 31st, 2016).

Results: 175 new born children had congenital malformations. The malformations found were dominated by poly-malformations (22.2%), followed by chromosomal aberrations (21.14%), cardiovascular malformations (16.00%), and malformations of the nervous system (11.43%). The congenital malformations impacted 11.67% of births with a 2.3 sex ratio. 53% of the parents were living in unfavourable socioeconomic conditions. The average paternal and maternal ages were respectively 38.70 and 32.20 years. Two thirds of the mothers were primiparous with one fifth of them having a history of miscarriage. The prenatal ultrasound was positive in two thirds of the cases. A quarter of the pregnancies were accompanied by dysglycaemia mainly gestational diabetes. 57.71% of the new born children were at ended term, one sixth were from consanguineous parents, 87.42% of the pregnancies were well monitored and two thirds of them had a caesarean section. Half of the studied cases were normotrophic. Half of the cases passed away, with half of which survived only seven days after birth.

Conclusion: Congenital malformations are at the basis of morbidity and major mortalities. The early detection of pregnancies prone to develop these anomalies is armed by early supervision. The best treatment for these malformations is prenatal diagnosis.

Policy of full disclosure: /
Objective: To determine spectrum of histopathological changes and clinical features of renal involvement in patients with plasma cell neoplasms.

Methods: A 5-year retrospective study was conducted in Department of Pathology from January 2013 to December 2018. Out of 2520 kidney biopsies, 24 patients with renal manifestations of plasma cell neoplasms were included. The data were obtained from records, Histopathology slides stained with H & E stain, PAS stain and CongoRed stained slides. Immunofluorescence studies were reviewed for these cases.

Results: Renal pathologic spectrum comprised of light chain restriction. Primary amyloidosis cases have nephrotic presentation with protein to creatinine ratio ranged from 0.7 to 11.1. Only 3 of these had known history of multiple myeloma and remaining cases were first picked up on renal biopsy and immunofluorescence studies with further confirmation by bone marrow and serum immunofixation. Eleven cases showed Lambda light chain restriction and 4 cases showed Kappa restriction. There were 8 cases of primary amyloidosis which presented with pauci- and nephrotic proteinuria. Many of these patients had frothy urine and 1 patient also had backache at presentation. 2 patients had history of diabetes. Mean age of these patients was 51.3±6.1 years and mean spot P/C ratio was 14±2.5. Serum creatinine at presentation ranged from 1.2-7.6 mg/dl. None of the patients were known cases of myeloma and diagnosis was established based on renal biopsy and immunofluorescence studies. Further confirmation was done by bone marrow examination and electron microscopy. 7 of these cases showed Lambda light chain restriction and 1 case showed Kappa light chain restriction. There was a single case of Monoclonal Immunoglobulin deposition disease (MIDD) which presented with pauci- and nephrotic proteinuria. On investigation it was found to have nephrotic range proteinuria spot P/C ratio 8.5 and serum creatinine of 6.5 mg/dl. Renal biopsy and electron microscopy confirmed diagnosis of MIDD. Later immunofixation electrophoresis confirmed IgG-Kappa phenotype.

Conclusion: Renal involvement is common in patients with plasma cell neoplasms. Majority of patients are males and above the age of 50 years. Renal biopsy plays an important role and often provides the first clue in diagnosis of myeloma as was seen in our study. Patients with light chain cast nephropathy presented with acute renal failure/ RPF and is often accompanied by interstitial nephritis with majority showing Lambda light chain restriction. Primary amyloidosis cases have nephrotic presentation with predominant lambda light chain restriction on renal biopsy. MIDD is also an important pathological manifestation of myeloma with usually Kappa light chain restriction.

Policy of full disclosure: /
Kimura disease, a rare benign entity of a 14 year-old Filipino male: A case report and review of literature

Objective: To present a case of Kimura disease (KD) of a 14-year-old male presenting with multiple subcuticular subcutaneous masses with review of literature. It is one of the rare forms of benign chronic inflammatory disorder that involves subcutaneous tissue in the head and neck region and still with unknown etiology. KD is reported especially rare in the Philippines, though over 200 cases are reported globally.

Methods: A case report of KD in a 14-year-old Filipino male was reported. A half year ago, the patient presented with multiple subcuticular subcutaneous masses in the left neck that had developed over the last couple of months. Clinical examination disclosed a 3-5 cm mass with smooth surface, firm consistency, and increased mobility. Biopsy revealed lymphoplasmacytic inflammation with eosinophils and eosinophilic abscess. Subsequent lab findings demonstrated peripheral eosinophilia and strikingly high serum IgE. The histopathologic results concluded to Kimura disease and prompted oral prednisone treatment conclusion.

Conclusion: KD must be included as one of the differentials. Though it has distinctive histologic features, additional lab tests are vital to discriminate with other benign or reactive inflammatory disorders. Policy of full disclosure: /

Root cause analysis of pre-microscopic errors in anatomical pathology using Eindhoven classification

Objective: To evaluate pre-microscopic errors, a study was conducted in anatomical pathology laboratory of King Edward Medical University, Lahore, Pakistan.

Methods: Error rate was calculated in all the pre-microscopic processes including requisition, grossing, fixation, processing, embedding, staining and cover slipping. Defects per million opportunities were calculated to determine sigma metric value in every step from requisition to slide preparation. Root cause analysis was done using Eindhoven classification model of errors.

Results: A total of 2420 samples were collected and analyzed in this study. Initial error frequencies and percentages in each step from receiving of specimen and generation of code to slide preparation were calculated. Errors were reported in all stages of the surgical specimen handling process, with the most common errors reported in grossing, fixation of tissue sections and routine Hematoxylin and eosin staining. By using six sigma metrics reference table we calculated the defects per million opportunities and sigma metrics for errors that occur at every step of specimen processing in anatomical pathology. Root cause analysis was done using Eindhoven classification model. All the errors; and especially those errors with high frequency of detection were subjected to root cause analysis. This analysis revealed that contributing factors in error were due to lack of organization, inappropriate equipment, and poor knowledge and unawareness of facts regarding patient safety. Technical failures were mainly due to either lack of appropriate materials, equipment and software. Organizational failures occurred because of presence of protocols and procedures, and also accommodating persons with unprofessional behavior.

Conclusion: Errors were found almost at every step of sample processing. Development of standard procedures and protocols with training of the staff to have an effective implementation of these protocols will help in controlling the errors. However, efforts are needed both on organizational and individual level to promote a patient safety culture. Policy of full disclosure: /
Chordomas are a rare and aggressive bone tumors of notochord origin which are characterized by heterogeneous mechanisms for tumor growth/survival.

**Abstract Title:**
Clinico-pathological features of primary thyroid lymphoma: A report of four cases

**Abstract Text:**

Objective: The aim of this study was to describe the histopathogenetic, anatomic-clinical and evolutive characteristics of primary thyroid lymphoma (PTL).

Methods: This was a retrospective study of four cases of PTL over a period of 10 years from 2005 to 2015 collected in the department of pathology of Salah Al Aziez Institute.

Results: There were 2 men and 2 women with a median age of 76.3 years. They presented with an anterior basal cervical swelling that increased rapidly in volume associated with compressive signs. Clinically, it was a goiter in 3 cases and a voluminous and unique nodule in 1 case. Cervical and jugulo-carotid lymphadenopathy were present in 3 cases. Clinical and biological hypothyroidism was present in 1 case. Recurrent parathyroid was present in 2 cases. The cervical ultrasound performed in 3 cases showed a suspect voluminous nodule in one case, a suspect multinodular goiter of the thyroid in one case and a diffuse increase of thyroid lobe in the last case. The cervical scintigraphy, performed in 2 cases, showed one or more cold nodules. The cervical CT performed in one case showed a hypodense and multinodular thyroid. Peri-thyroid extension was present in 3 cases. Treatment was surgical in the 4 cases, followed by chemotherapy in one case and radiotherapy in one case. The histological examination coupled with immunohistochemical study concludes to diffuse large B cells lymphoma (DLBCL) in 4 cases.

Conclusion: Chordomas can lose H3K27me3 occasionally and it is necessary to investigate.

Policy of full disclosure: /
Objective: Adenoid cystic carcinoma and polymorphous adenocarcinoma are primarily the tumors of minor salivary glands. Both tumors show morphological similarities. However, both show considerable difference in treatment and prognosis, which raises the need to distinguish these two entities. In this study, we discuss the utility of two immunohistochemical stains, p63 and p40, in different possible combinations for diagnosis of adenoid cystic carcinoma and Polymorphous adenocarcinoma.

Methods: Immunohistochemical stains, p63 and p40, were performed on 47 cases of adenoid cystic carcinoma and 23 cases of polymorphous adenocarcinoma. Results: 36 out of 47 cases of adenoid cystic carcinoma displayed p63+ve/p40+ve profile, however only 22 of 23 cases of polymorphous adenocarcinoma displayed p63+ve/p40-ve profile. Only one case of adenoid cystic carcinoma showed p63-ve/p40+ve profile, p63-ve/p40-ve profile is seen in 10 cases of adenoid cystic carcinoma.

Conclusion: On combining all possible immunoprofile combinations, p63+ve/p40+ve profile appears to be most sensitive profile for adenoid cystic carcinoma and p63-ve/p40-ve profile is the most sensitive profile for polycystic adenocarcinoma. Policy of full disclosure: /
Cyclin D1: A useful marker for langerhans cell histiocytosis

Abstract

Objective: To evaluate the accuracy of intra-operative frozen section (FS), made in our department during one year (2016).

Methods: We retrospectively reviewed all thyroid specimens sampled for FS analysis made in our department during one year (2016). Of 77 patients who underwent thyroid lobectomy, 69 (89.6%) were female and the mean age was 48 years (15 – 78). The answer of FS was malignant in 4 cases (5.2%), benign in 46 cases (51.94%) and referred in 33 cases (42.86%). FS and final diagnosis agreed in 41 cases (53.25%) and disagreed in 3 cases (3.9%) and it was always false positive. Sixteen cases of thyroid carcinoma (20.78%) were diagnosed (15 papillary carcinomas and one medullary carcinoma). The sensitivity of the FS in the diagnosis of thyroid carcinoma was 25%, the specificity was 100%, the positive predictive value of 100% and the negative predictive value was 83%. The diagnostic efficiency was 85.7%.

Conclusion: Our study shows a low rate of discordant diagnoses (3.9%) which is similar to the main published series. The high deferred diagnosis rate (42.86%) is usually due to problems of sampling. This can be explained by the recent individualization of “noninvasive follicular thyroid neoplasm with papillary-like nuclear features”. Thus, the invasive character can only be identified after having examined the entire capsule and which is impractical in the settings of FS. Despite all these difficulties, our indices of diagnostic value and performance of FS in the diagnosis of thyroid carcinoma remain globally consistent with the data of the literature.

Policy of full disclosure: /
ABSTRACT TITLE: Frequency of KRAS, NRAS, and BRAF mutations in colorectal cancer in Saudi patients: A single-institution experience

ABSTRACT TEXT
Objective: Mutations in RAS, and BRAF are commonly present in colorectal cancer (CRC) worldwide, but no data about RAS mutations outside KRAS exon 2 is available for Saudi CRCs. We, therefore, analyzed the mutation frequencies of KRAS, NRAS, and BRAF along with association of age, gender, and tumor location in CRC patients from Makkah region as representative of Saudi population.

Methods: This was a retrospective study of 94 CRC patients, who attended Oncology clinic at KAMC from January 2017 to present. Genomic DNA was isolated from FFPE tumor samples, and analyzed for mutations of KRAS exons 2, 3 and 4, NRAS exons 2, 3 and 4, and BRAF exon 15 using hybridization-based strip assay.

Results: KRAS mutations were detected in 40 out of 94 (43%) tumor samples, of which 28 (67.5%) had mutations in exon 2, and 5 (12.5%) in exon 4. The majority of KRAS exon 2 mutants were found in codon 12 (n=31; 98%) followed by codon 13 (n=4; 11%). The most common KRAS mutations were Gly12Asp (30%) and Gly12Val (23%). Of the 54 wild-type samples tested for additional mutations, 51 samples were mutant for NRAS (11%), and two for BRAF (4%). Patients with RAS mutations did not harbor BRAF mutation. KRAS mutations were not associated with patient age, and gender. However, 54% of KRAS mutations were found in right-sided CRC as compared to 38% being left-sided CRC. NRAS mutations, although scarce in nature (n=6), were mainly found in females (n=5; 83%) in older age group (>50 yrs old; n=5; 83%), and in left-sided CRC. BRAF mutations were too rare to attain significant associations in this study.

Conclusion: To the best of our knowledge, this is the first study reporting KRAS, NRAS and BRAF mutation frequency in Saudi representative population, for which results appear similar to reported frequencies in Western population. Policy of full disclosure: /
**ABSTRACT TITLE:**
Lupus nephritis in Sudan

**ABSTRACT TEXT:**
Objective: The aim of this study was to identify the histological patterns of lupus nephritis according to WHO classification with correlation to the demographic data and clinical features.

Methods: This was a descriptive case series based on the data collected in 3 histopathology centers during the period from January 2011 to December 2013. The study included sixty biopsies with proven lupus associated nephritis. Patients' data were collected from patient files using predesigned data collection sheet. Formalin fixed paraffin embedded blocks of processed specimens were recut, stained and reviewed. SSPS and Windows office 2010 were used in data analysis.

Results: The study included 60 patients, 23 (38.3%) were children (age < 16 years) and 37 (61.7%) were adults (> 16 years). The patients' age ranged from 5 to 50 years with mean age of adults being 31 years +/- 9.4 SD while in children it was 12.5 years +/- 2.4 SD. The female to male ratio was 11:1. Proteinuria was the commonest clinical presentation in adults detected in 48% of the patients, while in pediatricians the commonest presentations was both proteinuria and renal failure seen equally in 39.1% of cases. WHO class IV, II, III, V and I were detected in 28, 19, 8, 3 and 2 cases. Patients with class IV presented mostly with impaired renal function. Tubular atrophy and interstitial fibrosis were detected in 34% and 15% respectively, the latter showed statistically significant relationship with renal failure (P=0.04).

Conclusion: Proteinuria was the commonest presentation and class IV was the commonest class of lupus nephritis in Sudan. Despite the economical limitations in Sudan WHO classification can be followed in patient evaluation which makes it comparable to reports from literature.

Policy of full disclosure: /
In the absence of the image, here is the text that was extracted:

**Title:** GIST with rhabdoid differentiation in a woman with breast cancer: A case report and literature review

**ABSTRACT TEXT:**
Objective: In studies of Jordanian population, GISTs comprised 45% of the intra-abdominal mesenchymal tumors. However, only less than 5% of GISTs are associated with tumor syndromes. Recent studies are being published that highlight the association of sporadic GIST with other types of cancer, including breast cancer.

Methods: We here report a case of gastric GIST, epithelioid type, grade 1 with rhabdoid morphology in a patient with a history of breast cancer.

Results: A 76 year old female with a previous history of breast cancer presented with abdominal pain and a clinical picture of acute appendicitis. CT scan showed a heterogenous suberosal lesion at stomach greater curvature. The patient underwent appendectomy (which revealed suppurative appendicitis) in addition to stomach wedge resection. Histopathological examination of the gastric tumor showed a mixture of spindle and epithelioid cell proliferation, some with perinuclear vacuoles, along with prominent hyalinization, edema, and hemorrhage. Multinucleated rorite like giant cells were noted. There were cells with bizarre morphology and rhabdoid like appearance, other areas exhibit cells inside lacunae simulating chordoid like material. The tumor seemed to replace most of gastric mucosa and extend down < 1 mm away from inked serosal surface. Vascular invasion was identified in a large serosal vessel. The mitotic count reaches a maximum of 4/50HPFs. There is no evidence of necrosis. The tumor cells were immunohistochemically positive for CD117, DOG-1 and CD34 while negative for desmin, myogenen, S100, ER, CD31, CK7 and CK20 (Figure 1).

Conclusion: GIST with Rhabdoid differentiation are infrequent tumors, the co-existence of it with breast cancer is even more unique.

Policy of full disclosure: /
ABSTRACT TITLE: Malignant Granular Cell Tumor of the Anterior Abdominal Wall, with Prolonged Survival

ABSTRACT TEXT: Objective: To present a rare case of malignant granular cell tumor of the abdominal wall with metastasis to the lung and inguinal lymph node with prolonged survival. Methods: Case report: A 50-year-old female presented to a peripheral hospital with progressively enlarging mass in the anterior abdominal wall of one year duration. On physical examination, a 7 x 6 cm firm irregular subcutaneous mass was felt in the right lower paraumbilical area of the anterior abdominal wall. Wide local excision with safety margins of the tumor was done. Results: Microscopic examination revealed well defined but non-encapsulated subcutaneous mesenchymal neoplasm composed of irregular islands of large cells with mostly round to oval pleomorphic vesicular nuclei, with markedly granular cytoplasm and several large eosinophilic globules. The nuclear/cytoplasmic ratio was variable. Many foci of tumor necrosis and scattered mitotic figures, 4 per 10 HPF at a magnification of 200 were identified. Immunohistochemical studies showed the tumor cells to be strongly positive for vimentin, S100, and myoglobin were all negative. Ki-67 proliferation index was 3-5%. PAS stain highlighted the granules and the eosinophilic globules within the cyttoplasm of tumor cells. Follow-up of her CT scan showed bilateral multiple lung nodules and a large inguinal mass. Ten years later, she had persistent metastatic disease. However, the patient is still alive up to this date. Conclusion: Malignant granular cell tumor (MGCT) is a rare high-grade sarcoma of Schwann cell origin accounting for 0.2 % of all sarcomas. Abdominal wall is unusual site for MGCT; nine cases were reported in the literature. It has 39% mortality rate in 3-year interval. Our patient had a prolonged survival in spite of the present disease. Policy of full disclosure: /
Incidental gallbladder cancer diagnosed on cholecystectomy specimens: A study of 30 cases

**ABSTRACT TITLE:**
Incidental gallbladder cancer diagnosed on cholecystectomy specimens: A study of 30 cases

**ABSTRACT TEXT**
Objective: The gallbladder cancer is a rare cancer with poor prognosis. The association with gallstone disease is the main risk factor of this cancer. The aim of the studies was to describe the demographics, clinic-pathologic and therapeutic management of incidentally gallbladder cancer diagnosed on cholecystectomy specimens.

Methods: Retrospective study including 30 cases of gallbladder cancer incidentally detected on cholecystectomy specimens.

Results: The incidence of gallbladder cancer incidentally discovered was 0.83%. The sex ratio was 0.5 and the average age was 68 years. The main risk factor was cholelithiasis (38%). Adenocarcinoma was the most frequent histological type found in 66.6% of cases and it was biliary-type in 56.6% of cases. 77.6% of the tumors were classified in early stages (stages 0, I and II) and 22.4% were in advanced stages (III and IV). A simple cholecystectomy was curative in 66.7% of cases. Overall survival rate was 56.7% at one year. The best survival rate was for the early stages: 100% stages 0 and I and 45.4% stage II.

Conclusion: The gallbladder cancer has poor prognosis because of its late diagnosis. Thorough sampling and careful attention on histological examination of all parts of cholecystectomy specimens allows detection of early cancer with better prognosis.

Policy of full disclosure: /
High prevalence tubulogenesis diagnosed during autopsy examination at Maputo Central Hospital in Mozambique

Objectives: To determine the autopsy prevalence of TB and determine discrepancies between clinical diagnoses established as cause of death and final autopsy diagnoses of TB at Department of Pathology, Maputo Central Hospital.

Methods: Were conducted a retrospective analysis the medical records and protocols of the autopsies conducted in 2013. It was also analyzed the clinical-pathological concordance of the diagnosis of tuberculosis. Autopsy cause of death and contributing findings were based on the macro- and microscopic post-mortem findings combined with postmortem information. Results: Six hundred and fifty-three autopsies were performed during 2013, and tuberculosis was diagnosed in 121 cases (18.5%). The main age was 36 years (range of 2-80 years). HIV-tuberculosis co-infection was observed in 67 cases. The most frequent form of presentation of tubulogenesis was the disseminated form, regardless of the HIV status. The clinic-pathological discrepancies in the diagnosis of tubulogenesis was high (54.5%), meaning that more than half of the cases of tubulogenesis were not diagnosed before death.

Conclusion: The results of the study demonstrate the importance of autopsy in the correct definition of the cause of death particularly in settings with limited access to diagnostic testing during life. TB/HIV co-infection rate in Mozambique is high. There is an elevated number of TB cases aren’t diagnosed during life. It is necessary to establish screening algorithms that include more sensitive diagnostic methods for the detection of HIV-tubulogenesis earlier. Policy of full disclosure:

Analyses of circulating free DNA in patients with adult glioma: Correlation with IDH1, p53 and ATRX mutation status

Objective: Circulating free DNA (cfDNA) provides a non-invasive diagnostic tool to enable monitoring of tumour growth and response to treatment. Circulating biomarkers for gliomas are still being defined and are not yet in use in clinical practice. The current study was designed to assess cfDNA in Gliomas.

Methods: Study group comprised of 23 biopsy proven cases of adult gliomas and 15 healthy individuals. Serum cfDNA was quantified using quantitative PCR amplification of β-globin gene. Performance of the assay was statistically assessed through receiver operating characteristic (ROC) curve. Histological typing and grade was defined as per WHO criteria. IHC for IDH1/2R, ATRX loss and p53 mutant type expression was analysed in all cases.

Results: Circulating free DNA levels was significantly lower in healthy controls (88.93±50.38 ng/ml) compared to cases with glioma (382.93±609.58 ng/ml, p<0.001). Mean cfDNA level was significantly associated with grade of glioma and with IDH1 mutant status of tumor (p=0.0001 & 0.0001). Mean cfDNA level was higher in cases >45 years and in p53 positive cases. Area under curve in ROC analysis for glioma versus normal controls was 0.79 with specificity and diagnostic accuracy was 79.3%, 100% and 82.0% respectively.

Conclusion: Adult gliomas have significantly high cfDNA levels in sera. It appears that quantity of cfDNA from primary CNS tumours relates to the grade, IDH1 and p53 mutation status. cfDNA analysis could be investigated as a non-invasive tool for prognostication and in monitoring treatment response. Policy of full disclosure:

Outcome of abnormal postpartum smears done in a women’s hospital in Singapore

Objective: To assess the histological outcome of post-partum smears and justify delaying performing them to 3 months as opposed to 6 weeks as currently practised.

Methods: A total of 5529 postpartum smears were retrieved from the Laboratory information system between 2015 and 2016. We identified 258 smears with abnormal results ranging from atypical squamous cells of undetermined significance (ASCUS), low-grade squamous intraepithelial lesions (LSIL), atypical squamous cells cannot exclude HSIL (ASC-H), high-grade squamous intraepithelial lesions (HSIL) to atypical glandular cells of undetermined significance (AGUS). 160 of these cases had histological follow-up.

Results: Of 258 smears with abnormal results, there were 134 ASCUS cases, 78 LSIL cases, 16 HSIL cases and 14 AGUS cases. 62% (160/258) of patients underwent histological evaluation - 55.2% (74/134) ASCUS, 61.5% (48/78) LSIL, 93.6% (14/15) ASC-H, 87.5% (14/16) HSIL and 64.3% (9/14) AGUS cases. The Positive predictive values (PPV) were lower but relatively acceptable in squamous lesions - LSIL (51.2%), ASC-H (53.3%) and HSIL (71.4%) compared with KKH cytology department average PPV range for the general screened population. However, the PPV were low in AGUS (0%) and ASCUS (12.2%).

Conclusion: Whilst PPV are acceptable for squamous lesions, there is a tendency to overcall postpartum smears in ASCUS and AGUS smears as majority have no significant pathology on cervical biopsies. Physiological changes in pregnancy causes cervical/endothelial glands and stromal alterations, which are known diagnostic pitfalls in cytology. Therefore, our study suggests delaying performing postpartum smears to at least 3 months instead of 6 weeks. Policy of full disclosure:

Histological spectrum of orbital-ocular lesions in Sagamu, Nigeria: A follow up study

Objective: To assess the trend and update data on the frequency and histologic pattern of eye lesions in our environment as follow-up to a previous study carried out between 2003 and 2012 in the department.

Methods: Paraffin blocks, slides and previous reports for the period of 2013-2017 were retrieved from the archives of the pathology department of the Olabisi Onabanjo University Teaching Hospital and reviewed by the authors. Frequency data on age, gender, site and histologic diagnosis were analyzed using SPSS 20 and comparison was made with the earlier mentioned study.

Results: In the study period, 25 cases of orbital-ocular specimen were seen and reported. The mean age for the patients whose biopsies were reviewed was 26.75years±22.5 with a range of 2 to 77years. There were 13(54.2%) females and 11(45.6%) males. Half (50%) of the specimen received were from the conjunctiva and retinoblastoma (6, 25.0%) was the most frequently diagnosed lesion. 630 (25.8%) of the lesions were malignant and consists of retinoblastoma and squamous cell carcinoma. Some of the benign lesions were squamous papilloma (9, 20.8%), capillary haemangioma (3, 12.5%) and pterygium (3, 8.3%).

Conclusion: This study showed an overall reduction in the frequency of orbital-ocular lesions compared to findings in the earlier study this may be due in part to the prevailing economic situation and the reduced ability of patients to afford surgeries for non-life threatening conditions. Policy of full disclosure:

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Conclusion: This study showed an overall reduction in the frequency of orbital-ocular lesions compared to findings in the earlier study this may be due in part to the prevailing economic situation and the reduced ability of patients to afford surgeries for non-life threatening conditions. Policy of full disclosure:
**ABSTRACT TITLE:** Differentially expressed miRNAs in hepatocellular carcinomas

**ABSTRACT TEXT**

Objective: Hepatocellular carcinoma (HCC), the most common primary liver cancer, is the fifth most frequent cancer and the third cause of cancer-related mortality worldwide. Our study evaluate the expression of several microRNAs implies in the pathology of hepatocellular carcinomas.

Methods: Expression of microRNA panel was performed by real time PCR, on 50 cases of patients diagnosed with HCC. The microRNA was evaluated in comparison from tumoral and normal tissue. The expression of hsa-miR-21-5p, hsa-miR-30c-5p, hsa-miR-141-3p, hsa-miR-141-5p, hsa-miR-144-5p, hsa-miR-182-5p was evaluated.

Results: miR-21, miR-30c and miR-182 was upregulated in HCC tissue. miR-141and miR-144 was downregulated in HCC tissue. These findings are in concordance to other published studies. Upregulation of miR-21, miR-30c and miR-182 has been associated with metastasis, angiogenesis and poor prognosis. Downregulation of miR-141, miR-144 has been implicated in apoptosis.

Conclusion: Understanding the role of miRNAs in the biology of HCC can potentially provide advances and options for HCC treatment, and might be useful for HCC diagnosis. Future research is needed to address and extend the therapeutic potential of miRNAs in inhibiting the progression of HCC.

Acknowledgement: The research was supported by the project POS CCE 2.21., ID 1844, SMIS 48700, CEDMOG and HEPMARK EEA-JRP-RO-2013-1313 project.

Policy of full disclosure: /

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**ABSTRACT TITLE:** Prognostic value of grading in resected thymoma with emphasis on the relevance of the histologic subtyping

**ABSTRACT TEXT**

Objective: More than 30% of thymomas show heterogenous histologic features composed of different subtypes. The diagnosis in such tumors should list all the histologic subtypes, starting with the most prominent component quantified in 10% increments. However, there is no evidence to suggest the biologic diversity of thymomas with histologic heterogeneity. This study was performed to determine whether specific histologic pattern or combinations carry prognostic significance in thymomas with histologic heterogenous subtypes.

Methods: The study included 96 patients who underwent surgical resection for stage I thymoma. A 3-tier scoring based on the histologic subtype was established. Score 1, type A/AB, score II, type B1/B2, and score III, type B3. And then these scores were combined into two separate grading. The first was defined as the score of most predominant pattern (P-grade), and the second was defined as highest score (H-grade).

Results: Among 96 thymomas, 31 (32.3%) cases showed heterogenous histologic subtypes. A combination of B1 and B2 subtypes (40.6%) was the most common mixed pattern. Of the 31 patients, 2 (6.5%) had recurrence during follow-up. One was composed of B1 (70%) and B3 (30%) and the other, B2 (60%) and B3 (40%). These two tumors were consistent with grade II based on P-grade and grade III based on H-grade, respectively. Remaining patients showed no evidence of recurrence, in which no more than 30% of B3 component was included.

Conclusion: Unlike other histologic subtypes, even when the B3 type is present as more than 30%, recurrence occurs in these thymomas. Although our results show no definitive evidence of significance by grading in influencing prognosis, grading based on the most aggressive component (H-grade) could be linked to the biologic behavior. Further elucidation is needed to determine the clinical implication of grading of thymomas with heterogenous histologic subtypes.

Policy of full disclosure: /

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**ABSTRACT TITLE:** Pathology in Kyrgyzstan

**ABSTRACT TEXT**

Objective: Description the current state of pathology in Kyrgyzstan

Methods: Statistical data analysis, an interview, an own experiences

Conclusion: To obtain certificate the pathologist study several years. A good specialist needs a lot of experience in many fields of pathology. Unfortunately, in Kyrgyzstan, there is no enough specialists of pathology. Currently, our specialists are working in the fields of: anatomic pathology, surgical pathology, systematic pathology, general pathology, pediatric pathology, obstetric pathology, gynecologic pathology.

Policy of full disclosure: /

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**ABSTRACT TITLE:** Diffuse sclerosing variant of papillary thyroid carcinoma: a rare variant with an aggressive potential: A case report

**ABSTRACT TEXT**

Objective: Diffuse sclerosing variant of papillary thyroid carcinoma is rare, accounting for 0.7-6.5% of thyroid papillary carcinomas. It is usually characterized by diffuse involvement of one or both thyroid lobes, without formation of a dominant mass. We report a rare case of a young patient diagnosed with diffuse sclerosing variant of papillary thyroid carcinoma (DSSVPTC).

Methods: A 37-year old male presented with a cervical mass. The ultrasound was in favor of a lobar thyroid nodule associated to a cervical lymph node metastasis. The patient underwent thyroidectomy with cervical lymph nodes dissection.

Results: On gross macroscopy, the right lobe appeared to be diffusely infiltrated by a multifocal tumor with a firm, pale appearance.

Conclusion: Compared to conventional papillary thyroid carcinoma, DSSVPTC has more aggressive course with higher incidence of lymph nodes metastasis and even distant metastasis at presentation. Its prognosis is ususally less favourable than usual papillary carcinoma, but it appears to regain similar prognosis today due to aggressive treatment protocols such as radical surgery and radiotherapy.

Policy of full disclosure: /
Objectives: Gastric duplication cysts (GDCs) are uncommon congenital anomalies mostly diagnosed in the paediatric age group and infrequently after the age of 12 years. They are most frequently encountered in the ileum (35%), stomach (9%), whilst the rest are distributed along the GI tract. Patients are usually asymptomatic, with a minority of cases presenting with abdominal pain, symptoms of gastric outlet obstruction or a palpable abdominal mass. Rarely, a neoplastic change occurs within GDCs, with only 10 documented cases in the literature to date.

Methods: Here we report a case of sarcomatoid carcinoma arising in a GDC.

Results: A 70 years old lady presented with vague post-prandial abdominal discomfort. CT scan showed a cyst in the supra-umbilical region, likely arising from the stomach, and abutting the pancreas, suggestive of a gastric duplication cyst.

After a laparoscopic sleeve gastric resection, macroscopically a cystic mass with intact serosal covering with an overlying slightly raised intact gastric mucosa. Histopathological examination confirmed a sarcomatoid carcinoma arising in a gastric duplication cyst. Three months post-operatively, multiple liver metastases were discovered; and after a single cycle of chemotherapy, she was pronounced dead.

Conclusion: Whilst GDCs are uncommon and are almost always benign lesions, there have been a few reports of neoplastic transformation, most notably to adenocarcinoma. To our knowledge, this is the first case of sarcomatoid carcinoma arising in a gastric duplication cyst.

Policy of full disclosure: / 

Abstract No. 006

Date 17.10.2018 & 18.10.2018

ABSTRACT TITLE: Sarcomatoid carcinoma arising in a gastric duplication cyst: A case report

Objective: Objective: Gastric duplication cysts (GDCs) are uncommon congenital anomalies mostly diagnosed in the paediatric age group and infrequently after the age of 12 years. There are most frequently encountered in the ileum (35%), stomach (9%), whilst the rest are distributed along the GI tract. Patients are usually asymptomatic, with a minority of cases presenting with abdominal pain, symptoms of gastric outlet obstruction or a palpable abdominal mass. Rarely, a neoplastic change occurs within GDCs, with only 10 documented cases in the literature to date.

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Policy of full disclosure: /

Abstract No. 006

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Policy of full disclosure: /

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Conclusion: Whilst GDCs are uncommon and are almost always benign lesions, there have been a few reports of neoplastic transformation, most notably to adenocarcinoma. To our knowledge, this is the first case of sarcomatoid carcinoma arising in a gastric duplication cyst.

Policy of full disclosure: /

Abstract No. 006

Date 17.10.2018 & 18.10.2018

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Objective: Objective: Gastric duplication cysts (GDCs) are uncommon congenital anomalies mostly diagnosed in the paediatric age group and infrequently after the age of 12 years. There are most frequently encountered in the ileum (35%), stomach (9%), whilst the rest are distributed along the GI tract. Patients are usually asymptomatic, with a minority of cases presenting with abdominal pain, symptoms of gastric outlet obstruction or a palpable abdominal mass. Rarely, a neoplastic change occurs within GDCs, with only 10 documented cases in the literature to date.

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Conclusion: Whilst GDCs are uncommon and are almost always benign lesions, there have been a few reports of neoplastic transformation, most notably to adenocarcinoma. To our knowledge, this is the first case of sarcomatoid carcinoma arising in a gastric duplication cyst.

Policy of full disclosure: /
Objective: Solid pseudopapillary neoplasms of the pancreas (SPNP) are rare pancreatic tumors with a low potential for malignancy, accounting for 0.17-2.7% of all pancreatic tumors. Tumor has typical histological features including cystic, solid, and papillary structures.

In this study, we reviewed the main pathological findings in 5 cases of SPNP with correlation to their clinical and imaging features.

Methods: Our study was retrospective, including 5 cases of SPNP, diagnosed in our department of pathology. Study included detailed clinicopathological, treatment and outcome data of patients with SPNP diagnosis who underwent surgical treatment from January 2010 to November 2016.

Results: 5 patients: 4 females and 1 male, with median age of 48.5 years presented with right hypochondriac pain. Clinically none of the patients had jaundice or family history of pancreatic neoplasm or pancreatitis. Ultrasound was performed in all cases, showing T1 lesion in 2 cases. CT scan was performed in all cases, and showed a well limited mass with variable size between 4 and 17 cm. A peripheral capsule was seen in 4 cases. The lesion was completely made up of two components; tissue component always enhanced after injection, and a constant liquid component. None of the patients had hepatic or lymph nodes metastases. MRI confirmed pancreatic origin and eliminated communication with the pancreatic duct. All 5 patients underwent curative surgery. On microscopy, there were sheets of tumor cells interspersed with pseudopapillae around fibrovascular cores in varying proportions, forming a solid-pseudopapillary pattern. Mitotic figures were rare. Extensive dystrophic calcification was detected in 1 case, visualized as coarse calcification on imaging. No lymphovascular or perineural invasion was seen in any of the cases.

Conclusion: SPNP are rare tumors with good prognosis, which should be evoked at imaging with size, showing heterogenous content. Diagnosis is confirmed based on pathological exam. Policy of full disclosure: /
Objective: We study the pathogenesis of asthma.

Methods: We followed 102 patients meeting the Porto proposal criteria, 53.7% were male. Chest X-ray revealed homogenous opacity containing a thick walled lesion in the right upper lung zone with an opacity within it suggestive of a fungal mass. Histology of the cavitary contents showed a 10x7mm mass in the external auditory canal.

Results: The mass was excised with wide margins and histology confirmed it as a ceruminous adenoid cystic carcinoma of the external auditory canal.

Conclusion: Ceruminous adenoid cystic carcinomas need radical resection to avoid recurrences. Policy of full disclosure: /
ABSTRACT TEXT

Objective: The aim of this study was to report Peripheral T-cell lymphoma, NOS with mediastinal involvement, a rare case.

ABSTRACT TEXT

Objective: Prune belly syndrome, rare congenital anomaly: A case report.

ABSTRACT TEXT

Objective: Lung cancers seen at a referral laboratory in Kenya: Demographic and pathological characteristics.

ABSTRACT TEXT

Objective: Gangliogliomas are rare, genetic birth defect affecting about 1 in 40,000 births. About 97% of those affected are male. Prune belly syndrome can be diagnosed via ultrasound while a child is still in-utero. With proper treatment, however, a longer, healthier life is possible. Policy of full disclosure: /
Nuclear expression of OCT4, a stem cell transcription factor is associated with tumor aggressiveness in renal cell carcinomas and is an independent prognostic factor for worse progression free survival in clear cell renal cell carcinoma.

**ABSTRACT TEXT**

Objective: OCT4 is one of the key embryonic stem cell (ESCs) transcription factors and is involved in the regulation and maintenance of pluripotency. It is among the most useful stem cell markers for cancer stem cell (CSC) identification which represent a population with tumor-initiating, self-renewal, and differentiation potential. This study aimed to evaluate the expression patterns and clinical significance of OCT4 as a stem cell transcription factor in renal cell carcinoma (RCC).

Methods: The nuclear and cytoplasmic expression of OCT4 was examined in 237 well-defined renal tumor tissues, including 162 (68.4%) clear cell renal cell carcinomas (ccRCC), 41 (17.3%) papillary renal cell carcinomas (pRCC) and 34 (14.3%) chromophobe renal cell carcinomas (ChRCC), by immunohistochemistry on a tissue microarray(TMIA). The association between expression of this marker and clinicopathologic parameters as well as disease specific (DFS) and progression free survival (PFS) were then analyzed. Results: OCT4 was observed mainly localized to the nucleus of tumor cells (97.9%). Nuclear OCT4 expression was positively correlated with higher stage and worse PFS in RCC (P values respectively 0.049 and P=0.002) and also worse PFS in ccRCC (P<0.047). According to the Cox regressions, OCT4 nuclear expression was the only risk factor of PFS in patients with ccRCC (P=0.008). Statistically significant difference between the cytoplasmic expression of OCT4 in the different RCC subtypes was observed (P<0.001). There was positive correlations between cytoplasmic expression of OCT4 and higher grade tumors (P=0.001), microvascular invasion (P=0.001) and short DSS (P=0.047) in patients with ccRCC.

Conclusion: Both nuclear and cytoplasmic expression levels of OCT4 are associated in ccRCC as the most prevalent RCC due to its more aggressive tumor behavior. These findings suggest that nuclear expression of OCT4 rather than its cytoplasmic expression can be considered as a prognostic and therapeutic marker for targeted therapy of RCC especially for ccRCC patients.

Policy of full disclosure:

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**SESSION No.** P-11
**SESSION TITLE** Nuclear expression of OCT4, a stem cell transcription factor is associated with tumor aggressiveness in renal cell carcinomas and is an independent prognostic factor for worse progression free survival in clear cell renal cell carcinoma
**AUTHOR** Mehdizadeh, Mitra
**ABSTRACT TYPE** Poster
**Co-Author(s)** Mafi, Zafira, Amini, Reza, Ahmadi, Mohammad, Amini, Moghan, Saiedi Nejat, Zarjani, Leili
**Date** 15.10.2018 & 16.10.2018

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**SESSION No.** P-22
**SESSION TITLE** Orbital teratoma: Report of two cases from Muhimbili National Hospital, Tanzania
**AUTHOR** Nyasaisaba, Claire Marie
**ABSTRACT TYPE** Poster
**Co-Author(s)** MUHAS, Dept. of Pathology Dar es-Salaam Tanzania
**Date** 17.10.2018 & 18.10.2018

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**SESSION No.** P-05
**SESSION TITLE** Assessment of satisfaction of histopathology trainees with the training program
**AUTHOR** Zulfu, Azza
**ABSTRACT TYPE** Poster
**Co-Author(s)** Omdurman Islamic University Dept. of Histopathology Khartoum Sudan
**Date** 15.10.2018 & 16.10.2018

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**SESSION No.** P-12
**SESSION TITLE** The clinicopathological characteristics of renal intratubular cytoplasmic AL Amyloidosis
**AUTHOR** Said, Samar
**ABSTRACT TYPE** Poster
**Co-Author(s)** Fider, Mary, Nasr, Samih
**Date** 15.10.2018 & 16.10.2018

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**SESSION No.** P-11
**SESSION TITLE** Amyloidosis
**AUTHOR** Boughzala, Seddik
**ABSTRACT TYPE** Poster
**Co-Author(s)** Gharbi, Nour El Hedia, Ouarab, Najah, Lassoued, Nadhira, Haddar, Smail
**Date** 15.10.2018 & 16.10.2018

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**SESSION No.** P-02
**SESSION TITLE** Objective: Clinicopathological description of two cases of orbital teratoma diagnosed at the Muhimbili National Hospital Tanzania
**AUTHOR** Nyasaisaba, Claire Marie
**ABSTRACT TYPE** Poster
**Co-Author(s)** MUHAS, Dept. of Pathology Dar es-Salaam Tanzania
**Date** 17.10.2018 & 18.10.2018

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**SESSION No.** P-12
**SESSION TITLE** Objective: Intratubular cytoplasmic AL amyloidosis (IC-AL) is exceedingly rare and its clinicopathological characteristics have not been defined. Here we report 5 cases of IC-AL.
**AUTHOR** Said, Samar
**ABSTRACT TYPE** Poster
**Co-Author(s)** Fider, Mary, Nasr, Samih
**Date** 15.10.2018 & 16.10.2018
Abstract No. 007
Date 17.10.2018 & 18.10.2018
SESSION TITLE Gastrointestinal patholog
AUTHOR Al-Maan, Amal
Co-Author (s)
ABSTRACT TITLE Gastrointestinal Basidiobolomycosis, an Emerging Fungal Infection of the Gastrointestinal tract, The Royal Hospital Experience.
ABSTRACT TEXT Objective: In this study, we aimed to examine epidemiology, clinical characteristics, histopathology findings, management, ancillary techniques which are important for diagnosis, management and outcome of an uncommon manifestation caused by the Basidiobolus ranarum. Methods: This is a quantitative study (case series). This study was conducted in the histopathology department at the Royal hospital which is a tertiary care institution. Cases diagnosed with all types of fungal gastrointestinal disease between 2008 and 2015 were reviewed. Cases with morphological features of Basidiobolomycosis were retrieved and the diagnosis was confirmed by a senior pathologist. Results: Five cases were identified. Out of five patients, four were misdiagnosed with other types of fungal infection which resulted in high morbidity and mortality. This case series revealed that the majority of patients identified were pediatrics (30%). Four out of five were from the same region (Soqrat-Diyar). All patients presented with the unspecific gastrointestinal symptoms that clinically mimics serious diseases. Additionally, all patients shared similar radiological findings and laboratory investigations. Conclusion: Diagnosis of Gastrointestinal Basidiobolomycosis (GIB) requires a high index of suspicion, increased awareness of this rare disease aid in early diagnosis and promote an early start of treatment. Since there is a resemblance in the clinical features of inflammatory and neoplastic bowel disease; GIB should be considered in the differential diagnosis. Policy of full disclosure:/

Abstract No. 007
Date 17.10.2018 & 18.10.2018
SESSION TITLE Soft tissue pathology
AUTHOR Ayadi, Rahma
Co-Author (s)
ABSTRACT TITLE Bizarre parosteal osteochondromatous proliferation: Case report and literature review
ABSTRACT TEXT Objective: Bizarre Parosteal Osteochondromatous Proliferation (BPOP) also known as Nora’s lesion, is a rare, benign tumour of the small bones. There have been fewer than 150 cases reported in the literature today. We report a new case of BPOP, describe its histopathological features and discuss its differential diagnosis.
Methods: A 17-year-old girl presented with a mass that increased in size in his left distal cubitus without any traumatic episode. The suspected radiographic diagnosis included periostructial chondroma, periostructural osteosarcoma, chondroid osteosarcoma and exostosis. A chirourgical biopsy was performed.
Results: Microscopic examination revealed prolifervative and disorganized mixture of bone, cartilage and spindle cells. Osteoid and blue bone were present, and the cells showed moderate atypia. The diagnosis of periosseal osteosarcoma was suggested. The patient underwent lobional excision. A cinemodored tumor of 2x2cm was identified arising from the cortical surface and consisted of cartilage cap and bone tissue. Histologically, the superficial area of the masses showed fibrocartilaginous tissue with high cellularity. Spindle shaped or stellate, enlarged chondrocytes were scattered in a myxoid stroma. The cells varied in size, and some were binucleated. The basal area was composed of immature trabecular bone with high osteoblastic activity. The spindle cells were arranged loosely among the trabeculae, which were apparently formed by a process of enchondral ossification. The cells showed neither atypical mitoses nor cytological atypia. The final diagnosis of BPOP was established.
Conclusion: BPOP is an uncommon and benign lesion. It must be distinguished from chondrosarcoma, parosteal osteosarcoma and periostructural osteosarcoma. The diagnosis is confirmed by histological examination. The treatment is surgical excision but there is a high rate of recurrences. Policy of full disclosure: /
Objective: Development of peripheral T-cell lymphoma after treatment of EBV-positive diffuse large B-cell lymphoma

ABSTRACT TEXT

Objective: Sequential development of peripheral T-cell lymphoma (PTCL) after successful treatment for diffuse large B-cell lymphoma (DLBCL) is very rare. To our best knowledge, only 4 cases have been described in English literatures. Methods: Herein we present a case of PTCL that developed after R-CHOP therapy for EBV-positive DLBCL in pharynx. Results: A 45-year-old male presented with sore throat and palpable neck mass for 3 months. On laryngoscopy, there was severe mucosal ulceration involving oropharynx. Imaging studies revealed a 10cm huge necrotic lesion from right oropharynx to hypopharynx. Excisional biopsy showed mixed proliferation of polymorphic centroblastic cells and immunoblastic cells with rich background of small lymphocytes. Immunohistochemically, the neoplastic cells were positive for CD20, CD30 and EBER with high Ki67 labeling index. CD2 was negative and EBV-positive DLBCL was diagnosed. After cycles of R-CHOP therapy, near complete regression was achieved on imaging studies. Eighteen months after the therapy, however, recurrent lymphadenopathy and tonsil enlargement newly developed. A biopsy on lymph node removed revealed pathologic features with the initial biopsy. Large-sized pleomorphic cells were positively stained with CD3 and CD8. These cells were negative for B-cell markers, CD4, CD30 and EBER. On gene rearrangement test, T-cell receptor gamma and beta genes were clonally arranged. Thus, diagnosis of PTCL was made. The patient expired after the diagnosis of PTCL. Conclusion: Our case underscores the importance of relapsing in the follow up of lymphoma patient and possible development of secondary malignancy by iatrogenic cause.

Policy of full disclosure: /
Objective: In KK Women's and Children's Hospital, Singapore, cervical cancer patients underwent radiation therapy are being follow-up with a cervical smear. This management varies among different countries; our objective was to evaluate the usefulness of cervical smear for diagnosis of recurrence in post radiation patients.

Methods: Cytology data from patients with radiation therapy in their clinical records were extracted from KK’s Laboratory Informatics System for the period of January 2015 to December 2016. Cases showing Atypical Squamous Cells of Undetermined Significance (ASCUS) and above were tracked for histological and/or cytological findings within 12 months.

The positive predictive value (PPV) of post-radiation dysplasia (PRD) which comprises low-grade and above and recurrent carcinoma were calculated.

Results: Of a total of 2,342 smears 121 showed ASCUS and above as the cytologic abnormality. These were separated into three categories; ASCUS (91), Low-grade (15) and High-grade (15).

Based on their histo/cytology follow-up, 2 cases were negative, 9 low grade and 4 had no follow-up.

In High-grade cases, 3 negative, 1 low grade, 2 high grade and 3 Squamous Cell Carcinoma (SCC), 4 adenocarcinoma. 2 cases had no follow-up.

The PPV for PRD was 18.6% and recurrent carcinoma 2.9%.

Conclusion: In our experience approximately 19% of post-radiation patients had PRD. Clinical follow-up perhaps is an alternative option to pick up recurrence but this can be made difficult due to radiation induced tissue changes and hence cervical cytology which is a simple and economical test coupled with HPV testing may be valuable in this context.

Policy of full disclosure: /
**SESSION No.** P-06  
**SESSION TITLE** Gynecological pathology  
**AUTHOR** Koh, Fong Seen  
**ABSTRACT TYPE** Poster  
**Co-Author(s)** Abaweardi, Alia Vargas, Naveen Gazal Awad, Saad Cheh, Ahmed Almarzooq, Saeeda  
**Date** 15.10.2018 & 16.10.2018

**ABSTRACT TITLE:** Ovarian mixed clear cell carcinoma and endometrioid carcinoma arising in borderline serumous carcinoma in a patient with HNPCC with PMS2 homoyzogous mutation

**ABSTRACT TEXT**

Objective: We present a case of a 28-year-old woman with HNPCC who presented with a partially cystic (2.8 cm) ovarian mass detected during follow-up for a history of colonic adenocarcinoma diagnosed at age 17. She had PMS2 homoyzogous mutation.

Methods: Hereditary non-polyposis colorectal cancer (HNPCC) has a cumulative life time risk of more than 12% for development of ovarian cancer. The majority are low-stage and well-modestly differentiated carcinomas of the non-serous histology. HNPCC-related ovarian carcinomas reported include endometrioid and clear cell carcinoma

Results: At the current presentation, metastatic colorectal carcinoma was suspected. She had ascites and elevated CA-125. Microscopically, the ovary was replaced by edematous large papillae with a hierarchal branching pattern. The lining epithelial cells vary from endometrioid cells, clear cell to those with a serous morphology. Stromal invasion was characterized by two morphologically distinct neoplasms: a clear cell carcinoma and an endometrioid adenocarcinoma (FIGO grade 1). A diagnosis of mixed clear cell carcinoma and FIG01 endometrioid carcinoma arising in a background of borderline serumous tumor was rendered. Immunohistochemistry reveals positivity for COX7 and PAx8 in all components. CK20 and WT-1 were negative in all components. The clear cell carcinoma was positive for P53, Napsin A and p16, while the negative endometrioid carcinoma was positive for Vimentin and p16 (focal). It expressed wild-type p53. The serumousenovascular borderline carcinoma component was positive for Napsin A (focal) and P16 (focal).

Conclusion: Serumous neoplasms are recently characterized ovarian neoplasms in the revised WHO Classification of Tumors of Female Reproductive Organs. The occurrence of this subtype of borderline ovarian tumor associated with two different subtypes of carcinomas raises a wide list of differential diagnoses.

Policy of full disclosure: /
Paediatric eye and ocular adnexal tumors in a referral tertiary health centre in Nigeria: A 10-year review

Objective: The study aims to review the epidemiologic and pathologic characteristics of tumours of the eye and ocular adnexa in the paediatric age group (0-14 years).

Methods: All the cases entered into the departmental records as tumours of the eye and ocular adnexa over a 10-year period (2005-2014) in the age group 0-14 years were extracted. The patients' request cards with all relevant Haematolytin & Esolin (H&E)-stained histology slides were retrieved. Fresh sections were made from stored tissue blocks in the event of missing or broken slides. All the slides were reviewed and the cases were classified in accordance with the 2nd edition of the WHO Histological Typing of Tumours of the Eye and its Adnexa (1998). The collected data were subjected to descriptive statistical tabulation and analysis.

Results: A total of 104 tumours of the eye and ocular adnexae were diagnosed in this location. The next commonest site of occurrence of paediatric tumours was the orbit, accounting for 12.5% of all tumours. Rhabdomyosarcoma was the most common paediatric orbital tumour accounting for over half (53.3%) of all tumours in the orbit. Tumours of the conjunctiva and the eyelid were relatively infrequent with benign soft tissue tumours (vascular, neural and lipomatous tumours) being the major tumours at these sites.

Conclusion: Majority of the paediatric eye and ocular adnexal tumours were malignant and occurred most commonly in the retina. Retinoblastoma is the single most common tumour in this age group.

Policy of full disclosure: /
**Abstract No. 008**

**Date:** 17.10.2018 & 18.10.2018

**Title:** Soft tissue pathology

**Author:** Bajdevska, Daniela

**Abstract:**

**ABSTRACT TITLE:** Soft tissue pathology

**ABSTRACT TEXT:**

Objective: We present a case of paratesticular spindle cell/sclerosing rhabdomyosarcoma. A case report

**SESSION No.:** P-25

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<th>AUTHORITY</th>
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<th>Co-Author (s)</th>
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<td>Bajdevska, Daniela</td>
<td>General Hospital Kumanovo Dept. of Pathology Kumanovo Macedonia</td>
<td>Poster</td>
<td>Iveski; Boris Kostadina-Kurovsk; Silvica Petruskowa; Gordana Spasevska; Ljiljana Martinovska; Zlatia Abdu; Guad Janevka; Vesna</td>
</tr>
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**Abstract No. 009**

**Date:** 17.10.2018 & 18.10.2018

**Title:** Genitourinary pathology

**Author:** Bourhoun, Najoua

**Abstract:**

**ABSTRACT TITLE:** Genitourinary pathology

**ABSTRACT TEXT:**

Objective: To highlight the clinicopathological characteristics of AML and to assess the role of Human Melanoma Black-45 (HMB-45), Melan-A, smooth muscle actin (SMA), S-100 and cytokeratin in its diagnosis. Methods: The study included 7 cases of AML. Clinical and radiological data were retrieved from the archival files and all cases were subjected to a histopathological evaluation. Results: AML was more common in females (female: male = 4:3), the mean age was 49.33; all patients were symptomatic. Tumor's size larger was more than 4 cm in all cases. 6 cases were classic AML, while 1 case was epithelioid AML. Classic AML demonstrated admixture of fatty tissue, thick-walled blood vessels, and smooth muscle, while epithelioid AML was composed mainly of epithelioid cells and contained no fat, in this case HMB-45 was positive and negative for cytokeratin. Conclusion: AMLs have characteristic clinicopathological and immunohistochemical features and their recognition is crucial for proper diagnosis and treatment.

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**Abstract No. 006**

**Date:** 15.10.2018 & 16.10.2018

**Title:** Hematopathology

**Author:** Bhaduri, Anita S.

**Abstract:**

**ABSTRACT TITLE:** Androgen receptor expression in breast cancer: A study of 122 cases in urban Indian population

**ABSTRACT TEXT:**

Objective: This study on a sample of urban Indian population aimed to investigate the prevalence and other factors relevant to androgen receptor (AR) expression in high grade invasive breast cancers, which constituted predominantly Triple negative breast cancers (TNBC). TNBC represents a unique subtype of breast cancers defined by the absence of target receptors & tailored target therapies, hence necessitating the study of additional receptors like AR.

Methods: AR expression was studied by immunohistochemistry on 122 cases of invasive breast cancers, from January 2016 to February 2018. At least 1% nuclear staining of any intensity was considered as positive for AR. Statistical correlation was studied between AR expression, patient as well as tumour characteristics and biomarkers (estrogen receptors (ER), progesterone receptors (PR) & Her2 status). ASCO/CAP guidelines were followed in the interpretation of biomarkers. Ab used was Biocare AR441 and platform was Leica BondMax immunostainer.

Results: Of the 122 cases, Grade III carcinomas accounted for 117 (95.9%) cases. TNBC constituted majority of this study with 106 (86.9%) cases and showed a younger mean age (55.4 years) at presentation and higher proliferative (Ki67) index than most western studies.

Overall AR expression was seen in 33 (27%) cases with a prevalence of 25.5% in the TNBC. This is higher than < 20% AR positivity reported in most studies. AR positivity was observed in 31 (26.3%) cases of ER negative cases which was slightly lower than 30% positivity reported in world literature. Strong statistical correlation of AR expression was observed with ER & PR as seen in most other studies. We also observed a positive statistical correlation of AR expression with Her2.

Conclusion: Although several published Western studies on AR expression exist, there is a paucity of such studies on the Indian population. The relatively higher AR expression observed in TNBC should further encourage their routine use in these cancers as it represents a potential target for therapy in a group with limited treatment options...

Policy of full disclosure: /

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**Abstract No. 019**

**Date:** 17.10.2018 & 18.10.2018

**Title:** Hamartoma, a rare benign tumor of the spleen: A report of two cases

**Author:** Chouchane, Sarah

**Abstract:**

**ABSTRACT TITLE:** Hamartoma, a rare benign tumor of the spleen: A report of two cases

**ABSTRACT TEXT:**

Objective: This work aims to report two cases of a splenic hamartoma with a review of the main finding concerning pathology and differential diagnosis.

Methods: This is a retrospective study about two cases of splenic hamartoma diagnosed at our pathology department in the university hospital of Monastir.

Results: We report two cases of a 57-year-old man and a 6-year-old boy. They presented with a splenic mass discovered during the exploration of a splenomegaly and abdominal pain in the first case and incidentally in the second case. The CT scan examination revealed in the two cases a well-circumscribed hypervascular splenic solid mass. They measured respectively 5, 5 and 6 cm in diameter. Both patients underwent splenectomy. Macroscopic examination showed in the two cases a round red-tan nodule containing foci of hemorrhage. Histologically, nodules were formed of haphazardly arranged small slit-like vascular spaces lined with plump endothelial cells without atypia. The perivascular areas enclosed focally lymphoid aggregates with a connecting network of fibrosis. Immunohistochemically, the cells lining the vascular channels were characteristically positive for CD34 but also for CD31 and CD34. Conclusion: Splenic hamartoma is a benign tumor composed of an aberrant mixture of normal splenic tissue, characterized by CD34-positive immunophenotype. Although this tumor is very rare, it must be known by pathologist to differentiate it from other vascular lesion of the spleen.

Policy of full disclosure: /
Objective: Multiple endocrine neoplasia type 2A (MEN2A) is a rare familial cancer syndrome that is characterized by a germline mutation in the RET proto-oncogene and is classically defined as the clinical triad of medullary thyroid carcinoma, pheochromocytoma, and parathyroid hyperplasia. To address the need for an extrapolation of the RET oncogene mutation, this study aims to present a predictive model that presents the likelihood that patients 30 years old and below presenting with medullary thyroid carcinoma and pheochromocytoma may have a high risk RET mutation, thru the meta-analysis of all reports containing the age of diagnosis and the mutation of their respective probands.

Methods: All the reported cases archived in PUBMED and EBSCO under the search string "multiple endocrine neoplasia type 2A"[All Fields] AND "mutation"[All Fields] were reviewed for the required information and adjusted for duplicated entries.

Results: C634R is the most commonly detected mutation in the 30 year old and younger age group, and was observed in 56% of the probands. There is a significant difference between the occurrence of C634R in the younger age group versus all the other mutations in the said group, in comparison to the C634R occurrence versus the other mutations in the older age group (p = 0.006), and that the higher percentage of C634R in the younger group did not occur by chance. Furthermore, the odds that someone from the younger group would have a C634R mutation is four times more than that of someone from the older group, with the OR = 3.8 (95% CI 1.44-10.29).

Conclusion: The predictivity of this modelling will allow a basis for clinicians to provide the information regarding the urgency for molecular testing to verify that the proband indeed has a high risk mutation. Moreover, clinical laboratories that would like to establish targeted genomic screening programs for MEN2A may opt to focus on the more prevalent high-risk mutations such as C634Arg, alongside p.Cys634Gly, p.Phe/Ser/Trp/Thr to verify optimization of testing versus constraints that are constantly experienced in a resource limited setting.

Policy of full disclosure: /
ABSTRACT TITLE: Morphological, histochemical and immunohistochemical changes of the tympanic membrane during its transformation to retraction pocket in - major risk of cholesteatoma

ABSTRACT TEXT
Objective: Retraction pocket of tympanic membrane (RP) is a localized part of tympanic membrane (TM) retracted towards tympanic cavity, it is flexible with a tendency to collapse into tympanic cavity. RP forms as a result of long-term or recidive underpressure in middle ear which is caused mainly by Eustachian tube dysfunction. But the other hand, there are theories and hypotheses claiming that pathogenesis of RP include presence of mesenchyma or inflammatory reaction related to otitis media. There are some histological studies describing breakage of basal membrane continuity in cholesteatoma, thus supporting retraction theory of formation of cholesteatoma.

Methods: We examined TM taken during standard operations at Pediatric ENT Department with diagnosis of RP of pars tensa in stages II or III by Characson classification. We prepared paraffin sections stained with hematoxylin and eosin (HE), Van Gieson, Verhoff, Alician and PAS. Then were RP processed for immunohistochemistry using antibodies CD45 LCA, CD31, D2-40, MMP9 and Ki67 staining was performed. 40 OSCC biopsies and 30 CRC biopsies were also immunohistochemically analyzed with SP antibody, including 29 male and 11 female patients were males (68.96% of all male patients) with moderately and poorly differentiated carcinomas were SP depleted in case of carcinoma. 30 CRC biopsies were also immunohistochemically analyzed with SP antibody, including 29 male and 11 female patients were males (68.96% of all male patients) with moderately and poorly differentiated carcinomas were SP depleted in case of carcinoma.

Results: We demonstrated the dependence of the density of capillaries on hyperkeratosis (p=0.0037) and on the thickness (p=0.0002), then the interaction of hyperkeratosis and thickness (p=0.0078) and the dependence of the subepithelial inflammation on the thickness (p=0.0188) and papillomatosis (p=0.0463). We compared RP in stage II with stage III by K27 (p=0.0438), by CD31 (p=0.0052), by CD45 LCA (p=0.00338) and by D2-40 (p=0.0286).

Conclusion: We described morphological and immunohistochemical signs of RP pars tensa of TM in children resulting in cholesteatoma. All the observed signs occur in the structure of matrix and perimatrix of cholesteatoma. A significantly higher incidence of all observed parameters except from MMP9 was proved in retraction pocket stage III, unlike in stage II. This observation proves the fact that retraction pocket is a progressive disease and is a precholesteatoma stage.

Policy of full disclosure: /
ABSTRACT TEXT

Objective: Malignant mesothelioma (MM) with heterologous elements such as osseous, cartilaginous, or rhabdomyoblastic differentiation is very rare, and it is also very difficult to differentiate from extraskelatal osteosarcoma of the pleura. We examined such MM cases and pleural osteosarcomas (PO) using clinicopathological and immunohistochemical methods, and also FISH to examine for homozygous deletion of p16.

Methods: Using formalin-fixed paraffin-embedded blocks from each case, we compared 10 malignant pleural mesotheliomas (3 biphasic type and 7 sarcomatoid type) with 2 pleural osteosarcomas.

Results: The median age was 72 years for mesotheliomas, (range, 64 to 86 years), and 69 years for osteosarcoma (range, 67 and 70). For MM, 9 cases were male and 1 was female. Including 1 case (case 10) of localized MM, all cases of MM exhibited a diffuse growth pattern, as did 2 cases of localized PO. Among MM cases, 80% (8/10) displayed osteosarcomatous and 60% (6/10) chondromatous elements, while 10% (1/10) exhibited rhabdomyoblastic ones. Immunohistochemical labeling for calretinin and AE1/AE3 was present in 6 out of 10 and 7 out of 10 MM, respectively, but in only 1 (with focal staining) of PO. FISH analysis revealed homozygous deletion of p16 in 6/9 MM and 2/2 PO. Exposure to asbestos was identified in 8 out of 10 MM, and in both cases of PO. Median survival was 7.6 months after biopsy or surgical operation in MM, and 18 months after operation in PO. One patient with localized PO (case 1) died 24 months after operation.

Conclusion: Although median survival was longer for PO than for MM, we could not differentiate MM from PO in the pleura on the combined basis of clinicopathological, immunohistochemical data, and FISH analysis. Policy of full disclosure: /
Cytogenetic profile of pelvic transition zones (ovary, fallopian tube and mesothelium junctions)

Abstract Text:
Objective: High-grade serous ovarian carcinomas (HGSC) are the most widely spread and lethal ovarian cancers and its precise pathogenesis is yet to be investigated. It is supposed that there can be different sources of this tumor (in the ovarian surface epithelium (OSE), peritoneal mesothelium or in the fimbrial part of fallopian tube (FF)). The potential trigger cells can localize in the transition zones (tubal-peritoneal, tubo-ovarian and ovarian-peritoneal). To prove this theory we investigated progenitor cells expression and their distribution.

Methods: Formalin-fixed sections of FF with tubal-peritoneal zone verification, ovaries with ovarian-peritoneal junction (in the hilum) and tissue samples with ‘ovarian’ fimbriae (tubo-ovarian junction) from patients with extraordinary pathology (n=25) and with HGSC (n=25). All samples were stained immunohistochemically for the stem-cell markers NANOG, LHX9, OCTA, CD117, CD44, LGR5. We used Mann-Whitney U-test for statistics. Results: A total of 25% to 100% of surface OSE expressed all markers except CD44, which occurred only in the cells with tubal-like phenotype. Fallopian tube epithelium shows wide spectrum of progenitor cells expression, the strongest and the most extensive expression of CD44 were found in peg cells; expression of NANOG were detected in 20% of FF cells, expression of CD117 and lowest expression of OCT4 were detected in few case of FF. The least informative marker was CD117 which is known to express in early HGSC but does not express in normal OSE and FF. The most valuable markers were NANOG and LGR5 which showed the most noticeable expression in all transition zones. We detected the significantly higher expression of LGR5 in OSE in compare to ovarian-peritoneal transition zone (p=0.0001) and in compare to HGSC (p=0.0077). In fimbrial part of FT in compare to TTPE (p=0.0030) and to HGSC (p=0.0089), in TTPE in compare to ‘ovarian fimbriae’ it was in favor of high epithelial expression of CD117 (p=0.0016) and in compare to HGSC (p=0.0050). In addition we showed the significantly higher expression of NANOG in OSE in compare to TTPE (p=0.0300) and in compare to ovarian-peritoneal transition zone (p=0.0500).

Conclusion: Our results provide evidence about progenitor cells distribution with important concentration of some of them in transition zones. This data proved the role of epithelial junctions as a trigger zones for HGSC pathogenesis due to the highest concentration of progenitor cells. Policy of full disclosure: /

Granular cell tumor of rectum: Report of a case

Abstract Text:
Objective: Granular cell tumor can arise in any body site and it is most commonly seen in skin, subcutaneous tissue and oral cavity. These neoplasms are rare in gastrointestinal tract with very few reports of rectal location. We report one such case of an asymptomatic 50-year-old man, presenting to the gastroenterology clinic for screening colonoscopy.

Methods: Endoscopy incidentally revealed a polyloid lesion and the patient underwent endoscopic curative resection. Grossly, the specimen measured 0.7 cm. in maximal diameter. Microscopic examination revealed submucosal distribution of nests and sheets of tumor cells with small round, uniform nuclei without mitotic activity. Immunohistochemically and histochemically the tumor cells expressed S100, CD68 and PAS-d respectively. The covering mucosa was intact.

Results: The final diagnosis was Granular cell tumor of rectum. Subsequently, the patient underwent a rectal endoscopic ultrasound that confirmed complete removal of the tumor.

Conclusion: Granular cell tumor is a neoplasms of Schwann cell origin with excellent prognosis in most cases. However, 2% of them can be malignant. Histopathology is essential for distinction between benign and malignant variants. Histological criteria with prognostic significance, such as necrosis, spindling, vesicular nuclei, increased mitotic activity, nuclear pleomorphism and high nuclear/cytoplasmic ratio can predict aggressive clinical behavior. Policy of full disclosure: /

Androgen receptor signaling in bladder urothelial carcinoma

Abstract Text:
Objective: The purpose of this study was to evaluate expression of androgen hormone receptors in bladder urothelial carcinoma.

Methods: From January 2017 to February 2018, we retrospectively collected tumor samples of patients diagnosed with urothelial bladder carcinoma at the pathology department of the FSI hospital, La Marsa. Our study was about 30 cases, one case of female patient was excluded. Immunohistochemical study was performed.

Results: The average age was 65 years with extremes ranging from 43 to 86 years. We had 24 cases of non muscle invasive carcinoma and 6 muscle invasive carcinoma cases. Depending on the OMS grade(2016) our cases were divided into 15 low grade and 11 high grade. A total of 12 (41%) patients immunohistochemically stained for AR. Tumors showing positivity for AR were 47% high grade and 41% low grade, with two cases of superficial positivity observed in OMS1. 85% of the staining tumors were non muscle invasive and 15% were muscle invasive. 59% of the tumors were AR negative including 76% low grade and 24% high grade ; 83% were non muscle invasive and 17% muscle invasive. Carcinoma in situ lesions present in 2 cases were AR positive.

Conclusion: Unlike literature data expression of AR seems to be negatively correlated to the grade with 73% low grade tumors being negative for AR. A correlation with the stage seems to be less evident. Policy of full disclosure: /

Rare primary cancer in urinary bladder: A small cell carcinoma

Abstract Text:
Objective: We presented an interesting and uncommon case, in which the transitional cell tumor was found in the transurethral resection specimen, but the small cell carcinoma was detected in the final radical cystectomy material.

Methods: Case report

Results: 65-year-old male was admitted to our urology department with hematuria, CT and cystoscopy revealed the presence of an invasive tumor of the bladder; the biopsy was in favor of high-grade urothelial carcinoma with a small-cell neuroendocrine component.

The final examination of resection specimen shows a small cell carcinoma without being able to individualise a urothelial contingent. A complementary assessment is carried has not shown any other location. We concluded to a primitive small cell carcinoma in urinary bladder.

Conclusion: Small cell carcinoma is less than 1% in urinary bladder tumors and it is very aggressive and refractory to treatment due to its higher metastatic capability compared to other common bladder tumors. When it is diagnosed, the disease is mostly in the metastatic stage, so the patients generally have a poor prognosis. To improve the cure chance or life expectancy, a multidisciplinary approach including radical cystectomy, chemotherapy, and radiation therapy should be initiated as soon as possible.

Small cell carcinoma of bladder has similar characteristics of age, sex, and symptoms to high grade urothelial carcinoma (HGUC). In addition the radiological imaging of these 2 different tumors are also the same. They can be distinguished by histopathologic examination. Small cell carcinoma of bladder is more rare and aggressive than HGUC. Even if HGUC was detected in the first cystoscopic evaluation, re-TUR should be done to define the concomitant different tumor like small cell carcinoma and to determine possible muscle invasion. In our case, small cell carcinoma was diagnosed in the pathologic evaluation of the cystectomy specimen.

Conclusion: There are few data on the ideal approach for diagnosis and treatment in this tumor. In such cases, urologists, pathologists, and medical oncologists have a big responsibility. With a multidisciplinary approach, early diagnosis and immediate intervention can supply a better survival and a more comfortable life. Policy of full disclosure: /
Differentiated carcinomas with adeno- and neuroendocrine features, which are not a true HGNEC but an aggressive variant of adenoacinar or squamous cell carcinoma that should be managed as such. Since most HGNECs present with advanced disease, staging is performed using the standard techniques of endoscopic ultrasound along CT of the abdomen, thorax and pelvis. In this report we described a case of HGNEC analyzed for the first time also with probe-based confocal laser endomicroscopy (pCLE) system.

Methods: Rectal ultrasound endoscopy was performed in a man of 72 year old man with rectal submucosal lesion. The lesion was highly growing and ulcerated compared to previous endoscopy. pCLE was performed resulting in a real-time imaging of more than 2 thousand frames off-line analyzed. Biopsies were taken for histological analysis. Results: pCLE showed a peculiar cellular pattern : altered mucosal architecture with a large amount of small cells indicated for HGNEC. This pattern was quite different from poorly differentiated adenosccarcinomas (PDA) where tissues appeared darker, very irregular even if glandular structures could be still recognized. Immuno histochemical analysis diagnoses High grade neuroendocrine carcinoma. Vascularule and mucosal pattern resulted by pCLE compared to immune-histochemical analysis were quite overlapping (figure 1).

Conclusion: High grade neuroendocrine carcinomas (HGNECs) constitute a series of aggressive malignancies. Colorectal HGNECs constitute a rare histological subtype, with poor prognosis, of colorectal cancer. Because of rarity, histological heterogeneity, and the poor prognosis it is important to evaluate a valid and rapid method to diagnose the tumor. In this case report we confirm the usefulness of pCLE as method in vivo that could address to pathologist to the diagnosis of neuroendocrine tumors.

Epidemiological and pathological characteristics of malignant obstructive jaundice in Egyptian patients eligible for surgical intervention.

Methods: This longitudinal study included 108 cases with malignant obstructive jaundice in Egyptian patients eligible for surgical intervention.

Clinical and demographic data were collected from the medical and pathological reports retrieved from the Pathology Department, National Liver Institute, Menoufia University, from 2011 to March 2018.

Results: Results revealed that 50% of the studied cases were at least 54 years old, 63% were male and 37% were female. Regarding age, 55.5% of the cases were ducal pancreatic adenocarcinoma and 44.4%were ampullary and periampullary adenocarcinoma. Regarding the grade 23.2% were well differentiated, 63.9% were moderately differentiated, 5.6% were poorly differentiated and 0.9% undifferentiated. About 53.7% of the cases were located at the pancreatic head and about 57.4% were positive for lymph node involvement. 56.7% of the cases were at least 3.5cm on the greatest dimension. At about 71% of the cases had peritoneal invasion (83.3% Pancreatic) and 21.3% showed Lymphovascular invasion . About 22% of cases of ducal pancreatic adenocarcinoma were on top of chronic pancreatitis.

Conclusion: On the basis of 108 Egyptian cases with malignant obstructive jaundice most commonly concerned with a median age 54 years old. It is more common due to pancreatic adenocarcinoma and it is mostly moderately differentiated, with pancreatic invasion in most cases. Policy of full disclosure: /
Objective: The human herpesvirus 8 (HHV-8) is an oncogenic virus associated with Kaposi’s sarcoma and some lymphoproliferative disorders like multicentric Castleman’s disease, which are found mostly in HIV positive individuals, but rarely are diagnosed in seronegative patients.

Methods: We present a case of a 55 years-old man with no significant medical history, who was admitted to the Internal Medicine Department accusing severe asthenia and fatigue, diffuse abdominal pain, vomiting andnausea.

Results: The clinical examination revealed generalized lymphadenopathy and hepatomegaly associated with severe inflammatory syndrome, a lymphoproliferative disorder was suspected. An osteomedullary biopsy (OMB) and an inginal lymph node biopsy was performed. The OMB presented normal cellularularity with minimal reactive lymphocytosis, and the morphology of the lymph node was suggestive for hystologic vascular variant of Castleman’s disease. Test for HIV infection was carried out, which was negative. The patient followed simptomatic and corticotherapy with favorable clinically outcome. After 3 months he was admitted again in the same Department with severely altered general status, persistence of the lymphadenopathy, high fever and a broad confluent maculo-papular violaceous eruption on his right leg. Clinically an autoimmune vasculitis was suspected and a cutaneous lymph node biopsy was performed. The morphology of the lymph node was similar with the previous one and on the skin biopsy we noted the presence of a diffuse infiltrative vascular proliferation, lined by a single layer of plump endothelial cells with hyperchromatic nuclei and some pleomorphism, around with eosinophilic spindle cells admixed with chronic inflammatory cells. The diagnosis of a plaque stage Kaposi’s sarcoma and multicentric Castleman’s disease was made and the HHV-8 infection was proved by Immunohistochemistry and by blood tests.

Conclusion: HHV8-associated neoplasms represent a unique group of rare malignancies, associated in most of the cases with HIV infection or immune-suppression. In our case we could not prove the presence of any immunesuppression, the advanced age was the only risk factor.

Policy of full disclosure: /
Objective: Astroblastoma is an uncommon brain tumor of glial origin, with typical manifestation in the young age, although few congenital cases have also been described. Sometimes isocitrate dehydrogenase 1/2 (IDH1/2) mutations, common in gliomas, have been also suspected in astroblastoma.

Methods: Patient 25-year-old male presented with a history of three months headache. No other clinical comorbidities were presented. Magnetic resonance imaging (MRI) of the brain demonstrated well circumscribed, intra-axial abnormal signal intensity lesion measuring 4.3 cm in the occipital region of the brain. Histopathological examination, was done formalin fixed and paraffin embedded tissue and immunohistochemistry staining method too.

Results: Histopathological examination revealed a well circumscribed lesion with columnar to elongated and elongated and showed abundant eosinophilic cytoplasmic with a prominent, stout and tapering cellular process terminating on central hyalinized blood vessels in rosette. There was no anaplastic features, atypical mitotic figures and necrosis. According to these features differential diagnosis included of ependymoma. Accordingly, immunohistochemistry for GFAP (clone - EP6721), EMMA (clone - E29), S100 (polyclonal), AE1/AE3 (clone - A1/AE3), Ki67 (clone - MIB1), P53 (clone D07), Vimentin (clone - V9) was performed using standard methods like histopathological. Results showed vs GFAP and Vimentin positivity, EMMA and S100 were focally positive, AE1/AE3 and P53 were negative and ki67 was 5%.

Conclusion: Histological features and immunohistochemical results for astroblastoma and ependymoma look like each other. However, according to magnetic resonance imaging localisation is more specific for astroblastoma.

Policy of full disclosure: /
Objective: With the development of minimally invasive endoscopic techniques in recent years, superficial tumors of the esophagus and tumor-like lesions are resected more reliably and less traumatologically on patient hands. In this study, we aimed to evaluate 27 cases of endoscopic submucosal dissection (ESD) of the esophagus diagnosed in our department retrospectively.

Methods: Between May 2013 and May 2017, 27 esophageal ESD were performed at İzmır Katip Celebi University Ataturk Training and Research Hospital Gastroenterology Clinic and pathologic evaluation in our laboratory. All resected specimens were placed on a formaline board stirypoam and pinned to identify the horizontal margins. Photographs of the specimens are taken and the whole material are step sectioned at 4.5 mm intervals. All cases were evaluated according to age, gender, location in the esophagus, diameter of the lesion, histopathologic diagnosis, resection margins, depth of invasion in malignant cases, pathological stage, presence of lympho-vascular-neural invasion, and associated lesions.

Results: The age of the patients ranged from 41 to 80 years (mean 63.3). Thirteen patients were female, 14 were male. According to the localizations, 1 case was located in the upper third of the esophagus, 15 cases in the middle and 11 in the lower third of the esophagus. The diameter of the lesions varied between 1-8 cm (mean 2.6 cm). Histopathological diagnoses were as follows: invasive squamous cell carcinoma (SCC) in 9 cases, adenocarcinoma in 8 cases, in situ SCC in 3 cases, adenosarcoma in 2 cases, basaloid SCC in 1 case, Barrett’s esophagus in 1 case, seboreic-keratosis like lesion in 1 case and lympoid-associated tumor in one in 6 cases. In 9 cases SCC were diagnosed as pT3, 3 were pT1a; 1 of the 2 cases of adenocarcinoma were evaluated as pT1b and the other as pT2b. 1 invasive pT1 SCC and 1 in pT2 adenocarcinoma cases, vertical margins were positive for cancer. In the rest 25 cases, all lateral and vertical margins were free of tumor.

Conclusion: 2 patients out of 27 went radical surgery for the vertical margin positivity. All 25 cases that have free horizontal and vertical margins are endoscopically on follow up. There are no recurrences in the resections of these cases. The ESD method widely used in the stomach and colon has been used successfully in the experienced hands for the esophagus in recent years. This method is of great benefit for the patient as a minimally invasive method rather than radical surgery, and en bloc resection of the lesion with safe surgical margins provides precise detailed histopathologic evaluation. Policy of full disclosure: /
Calciﬁphylaxis: A rare cause of mammographic calcification

Abstract Text
Objective: Calciﬁphylaxis is a serious medical condition which involves ectopic deposition of calcium in arteries of various tissues and organ systems. This occurs in patients with end stage renal failure leading to disturbances in calcium metabolism.
Methods: Here, we present a rare case of mammographic calcification in a patient on longstanding renal dialysis.
Results: This is a 57 year-old female who has been on renal dialysis for over twenty years due to polycystic kidney disease. She presented to the breast clinic with unilateral severe pain and lumpness of her breast. There was no history of trauma. On mammography, a US echogenic lesion with adjacent low echogenic area containing calcification was identiﬁed. An image guided core biopsy showed numerous foci of histological calciﬁcation within a large area of fat necrosis. Some of the calciﬁcation was located within arterioles and small sized blood vessels. This was conﬁrmed by CD31 immunohistochemistry.
There was no evidence of atypia or malignancy and a broad spectrum cytokeratin was negative. The diagnosis of fat necrosis with benign calcifications due to mammary calciﬁphylaxis (B2) was made and the patient remains uneventful after 3 months of follow up.
Conclusion: The hallmark of calciﬁphylaxis is the deposition of calcium within small to medium sized vessel walls. This leads to ischaemia and necrosis of tissue. The condition commonly affects the skin and is rarely seen in other organs. In the breast, only a few cases were reported in which patients presented symptomatically with a necrotic lesion resembling carcinoma. Awareness of this condition is vital when considering patients with concomitant longstanding renal disease to ensure appropriate and timely patient management.
Policy of full disclosure: /

Calciphylaxis: A rare cause of mammographic calcification

Abstract Text
Objective: Chronic Myeloid Leukemia (CML) is a myeloproliferative neoplasm that is rarely coexistent with lymphoid malignancies. Almost all the previously reported cases represent lymphoid blast crisis. What is interesting about this case is that: (1) it demonstrate the rare coexistence of CML and Philadelphia chromosome positive-Diffuse large B-cell lymphoma (Ph+DLBCL), (2) the previously reported Non-Hodgkin lymphomas (NHL) in CML patients were mainly of precursor T-cell origin, (3) Despite being rare even Universal prognostic of the combined CML and Ph+ NHL open the door for further studies to provide clear pathogenesis and diagnostic criteria, leading to improve management of such cases.
Methods: Peripheral blood smears were air dried and stained with Leishman stain. The skin and bone marrow trephine biopsies were formalin-ﬁxed, Parafﬁn-embedded, stained with Hematoxylin and Eosin stain and immunohistochemical staining as well as, used for Fluorescence In Situ Hybridization (FISH), Karyotyping were carried out according to a standard technique.
Results: Here: A 41 year old, previously healthy man presented with dizziness and ﬁrst degree family history of hematological malignancy. He was found to have anemia, thrombocytopenia and hepatosplenomegaly. The bone marrow was hypercellular for age (89%), inﬁltrated by myeloid precursors with left shifted maturation. The diagnosis of (CML; chronic phase) was established and conﬁrmed by IHC (Bcr/Abl). It was treated with IMatinib. Five months later, he developed cutaneous nodule on the chest wall. Histologically, it was reported as Non-Hodgkin DLBCL, (IPI 2). The skin inﬁltrate was positive for BCR-ABL1 fusion gene and negative for BCL6, IGH, and MYC genes rearrangements, by FISH. The patient was treated by R-CHOP chemotherapy and suffered frequent episodes of severe thrombocytopenia. Finally he died within 20 months after presentation.
Conclusion: Our case highlights the development of Ph+ surface immunoglobulin negative, mature DLBCL in a CML patient, and its poor outcome.
Policy of full disclosure: /

Calciphylaxis: A rare cause of mammographic calcification

Abstract Text
Objective: Congenital infantile ﬁbrosarcoma (CIFS) is rare malignant soft tissue tumour, usually presenting before 2 years of age. CIFS affects extremities in over 70% of cases but have also identiﬁed in other areas, including the head, neck and abdomen. We report herein a liver CIFS diagnosed in an infant.
Methods: A 3-month old boy was referred to our hospital for labiopalatoschisis. A large palpable mass ﬁlling the left hepatic lobe was discovered. On abdominal ultrasound scan (US) and CT scan it had vascular features consistent with vascular malformation. Surgery was performed.
Results: A 5 cm grey mass with sharp edges within left hemihepatectomy was diagnosed by WHO classiﬁcation and criteria (DeLellis et al., 2004). Expression of cyclin D1 and p27 was detected by immunohistochemistry and assessed as the fraction of positive cells (%) by computer-assisted morphometry using NIS Elements software and optical system consisting of EclipseEcl Microscope: DS-F1 camera (Nikon, Tokyo, Japan). Statistical analysis included descriptive methods (mean±standard deviation), calculation of 95% conﬁdence interval (Altman et al., 2000) and Mann-Whitney test (IBM SPSS Statistics 23; Armonk, USA).
Conclusion: CIIFS of the liver has never been reported. Its diagnosis is based on histology, immunohistochemistry, and, whenever possible, on the detection of the reciprocal translocation t(12;15) resulting in the gene fusion (ETV6-NTRK3). Its prognosis is good with low rates of recurrence and/or distant metastasis and surgical resection is the mainstay of treatment.
Policy of full disclosure: /

Calciphylaxis: A rare cause of mammographic calcification

Abstract Text
Objective: To conﬁrm thyroid follicular carcinoma (FC) versus follicular adenoma (FA), a highly cellular spindle or ovoid shaped cell proliferation organized in interlacing bundles with a haemangioendothelomatous vascular pattern and vascular “lakes”. It was diffusely positive for vimentin and scarcely for SMA (smooth muscle actin). Desmin, CD31, CD34, GLUT1 (glucose transporter 1), Fact VIII, HHV8, cytokeratin 7, and Hepatocyte growth factor receptor (HGF receptor) (c-Met) 1 were negative. Ki-67 antibody labeled 20% of the nuclei. The ETV6-NTRK3 translocation was detected by FISH and RT-PCR. It was concluded to be a CIFS of the liver.
Results: Peripheral blood smears were air dried and stained with Leishman stain. The skin and bone marrow trephine biopsies were formalin-ﬁxed, Parafﬁn-embedded, stained with Hematoxylin and Eosin stain and immunohistochemical staining as well as, used for Fluorescence In Situ Hybridization (FISH), Karyotyping were carried out according to a standard technique.
Results: A 5 cm grey mass with sharp edges within left hemihepatectomy was diagnosed by WHO classiﬁcation and criteria (DeLellis et al., 2004). Expression of cyclin D1 and p27 was detected by immunohistochemistry and assessed as the fraction of positive cells (%) by computer-assisted morphometry using NIS Elements software and optical system consisting of EclipseEcl Microscope: DS-F1 camera (Nikon, Tokyo, Japan). Statistical analysis included descriptive methods (mean±standard deviation), calculation of 95% conﬁdence interval (Altman et al., 2000) and Mann-Whitney test (IBM SPSS Statistics 23; Armonk, USA).
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Policy of full disclosure: /
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**ABSTRACT TITLE:**
Metastatic neuroblastoma at initial diagnosis. A case report

**ABSTRACT TEXT**
Methods: case report
Results: Biopsy from the scalp and inguinal lymph nodes showed undifferentiated tumor tissue where medium sized atypical blastoid tumor cells are located in clusters and sheets in an eosinophilic sometimes fibrillary background showing blood vessels. The sinuses are also infiltrated by these tumor cells.
The PAS stain is negative. Immune histochemically, Pan leucocyte antigen is negative as also myogenin and EBER. CD45, CD3, CD20 and CD8 showed uniform positivity in the lymphocytic infiltrate. Our findings were consistent with a diagnosis of neuroblastoma marker is weakly positive in the neuropil-like structures and the cytoplasm of some tumor cells.

Conclusion: Metastatic Neuroblastoma in scalp and lymph node
Policy of full disclosure: no conflict of interest

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**ABSTRACT TITLE:**
Pattern of pap test and cervical infections at Bliss GVS Healthcare Nairobi

**ABSTRACT TEXT**
Objective: To determine the pattern of Pap test results in women attending Bliss GVS Healthcare Nairobi, Kenya.
Methods: Study design: This was a cross-sectional descriptive study.
Setting: Bliss GVS Healthcare cytology laboratory, between August and December 2017.
Participants: A total of 113 women aged 25 years and above were recruited from Bliss GVS Healthcare Nairobi, Kenya.
Material and methods: Demographic and clinical information was obtained by direct interview of the patients. Pap smears were collected by nurses in a standard manner to ensure the quality of Pap smears.

Results: A total of 113 patients were recruited. The mean age was 39.9 years (±6.96). About 79.6% were negative for intraepithelial lesion or malignancy (NILM) while 11.5% had atypical squamous cells of undetermined significance (ASCUS) or worse on Pap smear. Fourteen patients (11.7%) had infections, of these (9.2%) bacterial vaginosis and (2.5%) candida.

Conclusion: The majority of the patients had a negative pap test. There was no correlation between age and Pap test lesions.
Policy of full disclosure: /
Objective: Malaria infection is an important cause of mortality and morbidity around the world. Even if it is not endemic in Morocco, an increasing in cases of imported infections was noted in the last five years. The major problem facing pathologists in non endemic areas is that they are not aware of the histopathological aspects of malaria and therefore do not consider it as differential diagnosis.

Methods: We report a case of a 84 years old man from Morocco, who presented flu-like symptoms for 15 days after a trip to the Portuguese Coast. He suddenly died after External examination of the body showed cyanotic lips and fingernails. Internal examination showed a stenosis of the anterior interventricular artery with no significant atheromatous disease, the spleen was enlarged. Cut sections of liver and spleen showed congested vessels and multiple petechial hemorrhages. Histopathological examination showed suprabasal acantholysis with the presence of malarial pigment in capillaries of liver, heart and spleen. The cardiac myocytes were normal. The PCR performed confirmed the diagnosis of malarial infection by detecting Plasmodium falciparum.

Results: Malaria is the most important parasitic disease worldwide. Since its clinical symptoms are non-specific, forensic pathologists in non endemic areas do not consider it in the differential diagnosis of sudden death. The major histopathological post-mortem finding in this context is congested blood vessels filled with malarial cells laden with malarial pigment in various tissues including spleen, liver heart, brain and kidney. Macrophages with engulfed parasites can also be encountered. PCR can be used to confirm the diagnosis and to type the parasite.

Conclusion: A meticulous microscopic examination of blood vessels in specimens received in a context of unexplained sudden death is mandatory especially if there is a history of travelling to a malaria-endemic zone.

Policy of full disclosure: /
Abstract:

Objective: Papillary renal cell carcinoma (pRCC) is traditionally subdivided into type 1 and type 2. However the cases with overlapping histologic features, the mixed type, ranges 16.1 to 53.1% of pRCC. The purpose of this study is to find a reproducible method to stratify pRCC.

Methods: We found 39 cases of pRCC out of 981 RCC in the archives of CNUHN pathology department between 2004 and 2017. They were 17 type 1, 7 type 2, and 15 mixed type. Immunohistochemical stain of CK7, CD10, EMA, p504s, vimentin, and ABCG2 were performed. They were correlated with the clinicopathologic features. The mRNA expression data (NEJM 2016;374:135-45) were interpreted.

Results: There were 26 CK7-positive pRCC (CK7+pRCC), and 13 CK7-patchy or negative pRCC (CK7-pRCC). CK7+pRCCs were found in 15 type 1, 1 type 2, 10 mixed type pRCCs and CK7-pRCCs in 2 type 1, 6 type 2, and 5 mixed type pRCCs. CK7+pRCC was associated with better survival compared with CK7-pRCC. However other markers were not significantly associated with survival. The lower expression of CK7 was associated with over-expression of epithelial mesenchymal transition-associated genes.

Conclusion: We found that CK7+pRCC is associated with better survival, and suggest to classify pRCC into CK7+pRCC and CK7-pRCC.

Policy of full disclosure: /
Objective: Head and Neck Squamous cell carcinoma (HNSCCs) are malignant neoplasms with squamous differentiation arising from the upper aerodigestive tracts. These are associated with cigarette smoking, alcohol ingestion and human papillomavirus infection (HPV). The study was aimed at determining epidemiological and anatomical distribution patterns and HPV frequency ratio of the HNSCCs seen in the department of Pathology, Ahmadu Bello University Teaching Hospital (ABUTH) Zaria.

Methods: A ten year retrospective review of all HNSCCs diagnosed in the department of pathology of ABUTH, Zaria between January 2004 to December 2013. DNA was extracted from archived tissue blocks using QIAamp DNA FFPE tissue kit, quality assessed by PCR for human β-globin and PCR done using GrS+GrS HPV. Type specific HPV primers were used to identify specific HPV sequences.

Results: HNSCCs make up 5.3% of all carcinomas seen during the study period. Seventy eight cases satisfied the inclusion criteria. The male-female ratio was 2.4:1. The mean age was 54.16±17.24 years. Oral cavity was the commonest site corresponding to the lesion identified on histopathology. The background pancreatic tissue showed pancytopenia, normal renal and liver function, and normoglycemia.

Conclusion: We report a case of pancreatic vascular malformation with diffuse neuroendocrine hyperplasia and explore its etiopathogenesis in the context of chronic pancreatitis.

Policy of full disclosure: /
### P-03

**Title:** Fine-needle aspiration interpretive errors

**Abstract No.:** 011

**Author:** Khaled, Chirine

**Date:** 15.10.2018 & 16.10.2018

**ABSTRACT TITLE:** Fine-needle aspiration interpretive errors

**ABSTRACT TEXT:** To identify common and unusual interpretive errors (IEs) of fine-needle aspirations (FNAs) in order to understand their cause and help avoid such errors in the future.

**Methods:** All FNAs and their corresponding pathology results are correlated yearly for quality assurance. Discrepant cases are segregated into sampling errors and IEs. All FNAs with IEs (other than breast) were collected from 2005-2017. The FNAs and pathology slides were reviewed. The reasons for the erroneous diagnoses were tabulated.

**Results:** 30 cases were collected. 14 came from lymph node (LNs): 5 Non-Hodgkin’s lymphoma (NHL) were misinterpreted as reactive LN (4) and metastatic carcinoma (1). 5 metastatic carcinomas as reactive LN (2), NHL (1), Hodgkin’s Lymphoma (HL) (1) and granuloma (1), 3 HL as reactive LN (2) and carcinoma (1). One reactive axillary LN as metastatic breast carcinoma.

**Conclusion:** FNAs interpretation requires extreme attention to cellular components and their nuances. Being familiar with the different morphologies of Hodgkin cells and Hurthle cells, and being aware of focal atypia in MNG is challenging. Pathologists have to be aware of the different morphologies of Hodgkin cells and Hurthle cells, and being aware of focal atypia in MNG. According to some reports this type of tumor is resistant to chemotherapy and radiotherapy. The majority of patients develop metastasis, either synchronous, or metachronous. The data concerning its prognosis is limited due to rarity.

**Policy of full disclosure:** /
ABSTRACT TITLE: Study of immunohistochemical expression of Hairy Enhancer of Split-1 (HES1) and SOX17 expression in bilateral atriya and other non-cholestatic disorders

Objective: The aim was to evaluate immunohistochemical expression of Hairy Enhancer of Split-1 (HES1), and SOX17 in BA and other cholestatic disorders to investigate their roles in the differentiation between BA and non-BA cholestatic diseases.

Methods: A retrospective study included 61 infants with neonatal cholestasis (32) with BA and 29 with non BA cholestasis) in whom liver biopsy is indicated for etiological diagnosis. Results: HES1 was expressed in about 85% of BA cases compared to 37.9% in non-BA cases with a p-value <0.0001, furthermore, about half of BA cases (31.9 %) showed high HES1 expression compared to only (18.2%) of non-BA cases, achieving a significant statistical difference between both groups (P-value=0.037). Regarding SOX17, it was positive in all studied cases. About 90% of BA cases showed low expression of SOX17, while more than half of non-BA (55.2%) showed high SOX17 expression with a p-value <0.0001. HES1 expression was considered a good diagnostic marker for BA with 81% sensitivity and 70% specificity. Low SOX17 expression was significantly associated with BA with 55% sensitivity and 88% specificity.

Conclusion: HES1 expression could be used as a good diagnostic marker for BA with high sensitivity and specificity. Policy of full disclosure: /

ABSTRACT TEXT: A comparative study of the different subtypes of colorectal adenocarcinomas about 319 cases

Objective: The aim of this study was to document clinicopathological features of different subtype of colorectal adenocarcinomas and to compare the frequency and the prognosis of each subtype.

Methods: Retrospective study of 319 cases of colorectal carcinomas diagnosed at our Anatomy-Pathology department over 6 years from January 2010 to December 2015. Data concerning frequency, gender, age, tumor location, histological subtypes, tumor grading, residual adenomatous component, lympho-vascular invasion, perineural invasion, tumor budding, lymph node metastasis, distant metastasis and TNM stage were analyzed for each subtype.

Results: The total number of cases was 319, including 184 males (57.68%) and 135 females (42.31%). The sex ratio is 1.3:1. Male predominance is noted in all histological subtypes of adenocarcinomas except serrated adenocarcinoma where the predominance is female.

The left colon and the rectum are the most frequent locations for all histological subtypes, whereas serrated adenocarcinoma is observed in 50% of the cases in the right colon.

In this study, the major subtype is conventional adenocarcinoma (n=262) 82.13%, followed by mucinous adenocarcinoma (n=33) 10.36%, Signet-ring cell adenocarcinoma (n=14) 4.38%, serrated adenocarcinoma (n=8) 2.50% and finally medullary carcinoma (n=2) 0.61%.

Signet-ring cell adenocarcinoma is the most pejorative histological subtype with vascular invasion in 50%, perineural invasion in 75%, tumor budding in 60% lymph node metastasis in 70% and distant metastases in 66.66% of cases. Most patients with serrated adenocarcinoma have a good prognosis with 37, 50% of vascular invasion, perineural invasion and tumor budding. Lymph node metastases in 25% and distant metastases in 12.50% of cases.

Conclusion: The purpose of this study was to discuss the clinicopathological features and evaluate the prognostic value of different histological subtypes of colorectal adenocarcinomas.

Policy of full disclosure: /
ABSTRACT TITLE: Primary malignant peripheral nerve sheath tumor of the chest wall - A case report

ABSTRACT TEXT
Objective: A malignant peripheral nerve sheath tumor (MPNST) is a rare malignant soft tissue tumor that arises de novo from a peripheral nerve or as a transformation from a pre-existing neurofibroma or ganglioneuroma. Although this tumor accounts for 5% of all soft tissue sarcomas, the incidence of MPNST in the general population is noted only at 0.001%, but comparatively increases to 4.66% in patients with Neurofibromatosis type 1 (NF-1).

Methods: With this in consideration, this report presents a primary chest wall MPNST in a patient with no known family history of NF-1 and no clinical evidence of NF-1 de novo mutation. This is a case of a 36-year-old male with a chest wall mass that grew from 1 cm to 6.5 cm in greatest dimension within a three-month duration. Wide resection showed a 5.5x5x2.5 cm, fairly well encapsulated, ovoid, firm, fibrous tumor with a tan to light gray outer surface and a tan to light gray, firm to gritty cut surface with irregular islands of pale blue to pale gray, myxoid material. The lesion was limited to the soft tissues of the pectoralis minor and the intercostal muscles with a good plane of separation with the 4th and 5th rib segment.

Results: Histologic sections showed a malignant spindle cell neoplasm with associated intratumoral benign osseous and chondroid metaplasia. Targeted immunohistochemistry for CD99 and S100 given the behavioral and morphologic correlation that limits soft tissue tumors with the predisposition to benign osseous and chondroid metaplasia within the tumor. Immunohistochemistry confirms the diagnosis of MPNST.

The patient has no identifiable stigmata of NF-1 and has no history of previous surgical procedures for lesions indicating NF-1-associated nerve sheath tumors. Conclusion: The discussion of primary chest wall MPNST arising de novo in a patient with no identifiable co-morbid conditions, particularly in a limited income setting, addresses the need for awareness regarding this relatively rare soft tissue tumor occurring in the chest wall, while responding to the need for prompt and precise pathologic diagnosis within the constraints of health care delivery system capabilities to provide a multidisciplinary approach to treatment.

Policy of full disclosure: /
Objective: Papillary Thyroid Carcinoma (PTC) is a common primary malignant tumor of the thyroid. There are several variants including the very rare Warthin-like variant of PTC. We present a case of this neoplasm.

Methods: A 51 year old patient was admitted due to bilateral 1.1 and 1.0 cm thyroid nodules as incidental findings on ultrasound examination. Both lesions had irregular margins. Ultrasound-guided fine-needle aspiration biopsy was performed. The cytological diagnosis was bilateral Bethesda grade III lesions. The patient underwent total thyroidectomy.

On gross examination two irregular, solid, grey-white tumors located one in each lobe with a maximum diameter of 1.1 cm each.

Results: On microscopic examination the tumor of the right lobe consisted of cells with eosinophilic cytoplasm, nuclear chromatin clearing, grooves, pseudo-inclusions and a dense lymphohistiocytic infiltrate in the background of Hashimoto thyroiditis. On the same lobe a focus of microcarcinoma measuring 0.1 cm was found. The tumor of the left lobe consisted of the follicular variant of PTC. There was no oncocytic component or mixed differentiation of either tumor or regional lymph node metastasis.

Histopathological study was positive for AE-1/AE-3, CK-7 and HBME-1. Our histological findings were consistent with microlithaloma of the thyroid consisting of three foci one of them consistent with Warthin-like variant of PTC.

The patient received adjuvant treatment with 1-31 at 24 month follow-up the patient is free of local recurrence or distant metastasis.

Conclusion: Warthin-like variant of PTC shares histological features with Warthin tumor of salivary glands. It is often associated with Hashimoto thyroiditis. Its prognosis is similar to the conventional type of PTC of similar size and stage.

Policy of full disclosure: /
**ABSTRACT TITLE:** Positive: Intracranial chondrosarcoma is a rare malignant cartilaginous tumor that occurs in the presence of benign and malignant primary intracranial neoplasms. One of these scenarios involves rare occurrences of collision tumours. These are defined as simultaneous occurrences of tumours of different histology at the same time in the same location.

**Methods:** We are reporting here a case of intracranial chondrosarcoma that is quite unusual because it occurred in the presence of a meningothelial meningioma radiologically. Left fronto-parietal headache was the patient's chief complaint. The neurologic examination revealed right hemiparesis. The surgery did not show any evidence of tumor recurrence. The morphology of the lesion was quite unusual.

**Results:** A total of 5 cases were included in the study (100 female patients and 2 male patients), age range at the initial time of diagnosis 24 - 90 years, 68 breast surgical specimens and 34 metastatic tissue specimens. Metastasis location: regional lymph node (n=66), brain (n=3), bone (n=16), epiploon (n=2), liver (n=1), contralateral breast (n=1), colon (n=1), gillbladder (n=1), inguinal lymph node (n=1). The main molecular subtype was LUMINAL A - 51 cases, the second most common was LUMINAL B - 19 cases, the 3rd most common was HER2+ (ER-) - 18 cases, and Triple-negative - 18 cases. Conclusion: There is a need to develop new methods to detect and treat breast cancer at an early stage. The results of our study show that there is a clear correlation between the molecular subtype and the location of the metastasis. Further, HER2+ (ER-) subtype showed bone metastasis predilection, LUMINAL A, LUMINAL B, and Triple-negative a predilection for brain metastasis. Policy of full disclosure: /  

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**ABSTRACT TITLE:** A small pathology department study of patterns of metastatic spread in breast carcinoma

**ABSTRACT TEXT:** Objective: The aim of this study was to prospectively investigate the pattern of metastasis based on the 'intrinsic' molecular subtypes of breast cancer (luminal A, luminal B, Triple-negative, and HER2+), and to further clarify the potential for degenerative changes like calcifications. Conclusion: In conclusion, the pattern of staining of CM amongst African origin has been found to be comparable with that of developed countries despite the common plateau presentation and degenerative changes. Policy of full disclosure: /  

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**ABSTRACT TITLE:** Case report of a rare collision tumour of the intracranial compartment involving a meningothelial meningioma and an invasive metastatic adenoid cystic carcinoma of the cerebrum

**ABSTRACT TEXT:** Objective: Case report of a rare collision tumour of the intracranial compartment involving a meningothelial meningioma and an invasive metastatic adenoid cystic carcinoma of the cerebrum. Metastatic cancers to the brain are relatively common but may rarely occur in the presence of benign and malignant primary intracranial neoplasms. One of these scenarios involves rare occurrences of collision tumours. These are defined as simultaneous occurrences of tumours of different histology at the same time in the same location.

**Methods:** A 50-year-old woman presented with a history of recurrent headaches of 11 months, left eye swelling, ptosis and visual deterioration each of 4 months. Her Glasgow coma score was 15. She had multiple cranial nerve palsies involving cranial nerves I, II, IV, V and VI. MRI showed isointense contrast enhancing mid-basal and left superior orbital masses extending to the para-sellar region and temporal fossa. Intra-op findings showed extension to the para-sellar and temporal regions with firm fibro-fatty growth noted. Macroscopically the masses received were heterogeneously greyish white and fragmented.

**Results:** Histology showed a simultaneously occurring WHO grade I meningothelial meningioma and a metastatic cerebral adenoid cystic carcinoma (cribriform variant) primarily from the left lacrimal gland. Immunohistochemistry showed positive expression of PR by the meningioma and EGFRI, CD117, and CD44 by the adenoid cystic carcinoma. Ki-67 Immunohistochemistry showed a proliferation index less than 1%. Conclusion: Collision tumours involving the intracranial compartment are relatively uncommon. Meningiomas remain the most common intracranial host of malignant metastases. This has been attributed to their favorable unique immunological and hormonal environment. However, cases involving a metastatic adenoid cystic carcinoma are quite rare. Clinical accuracy in diagnosing these tumours macroscopically and radiologically is limited. Thus, the importance of extensive sampling of all tumor masses received. This finding is of significance in the clinical management of the patient. Policy of full disclosure: /  

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**ABSTRACT TITLE:** Breast pathology study of patterns of metastatic spread in breast carcinoma

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**ABSTRACT TITLE:** Gastric signet ring cell adenocarcinoma associated with Menetrier’s disease: A case report

**ABSTRACT TEXT**

Objective: Menetrier’s disease is an uncommon disease characterized by diffuse hyper trophy of gastric mucosa and giant gastric rugae with an increased risk of gastric cancer. Only a few reports supporting its association with gastric cancer have been found.

Methods: We present the case of a signet ring cell adenocarcinoma associated with Menetrier’s disease. A 54 year-old female.

Results: A 54-year-old woman was admitted to our hospital with history of anemia, anorexia and 10 kg weight loss. During her hospitalization the patient presented with an extrudal hematoma. A biopsy was performed revealed a bone metastasis of carcinomatous process. Abdominal computed tomography demonstrated diffuse thickening of the gastric wall. A gastric biopsy specimen showed thickened gastric mucosa and cystic dilatation of glands compatible with Menetrier’s disease and diffuse infiltration by signet ring cell adenocarcinoma. Total gastrectomy was performed. Unfortunately, postoperative convalescence was complicated and the patient died 7 days after diagnosis was made, and no therapy could be initiated.

Conclusion: A patient with signet ring cell adenocarcinoma associated with Menetrier’s disease is reported.

Policy of full disclosure: /
**ABSTRACT TITLE:**
Assessment of immunohistochemical expression of Claudin 1 in patients of urothelial cell carcinoma of urinary bladder in Suez Canal University Hospital

**ABSTRACT TEXT**
Objective: The development of urothelial carcinoma follows the acquisition of several genetic alterations and accumulation of such alterations is responsible for malignant transformation. The tight junction is part of the apical junction complex and is closely associated with both paracellular permeability and cell polarity, changes in expression/cellular localization of Claudins during tumorigenesis. The Claudins genes encode transmembrane proteins that belong to the super family of proteins, that have essential roles in TJ formation and junctions and has been proposed as a mediator of cell-cell adhesion and proliferation, which can contribute to tumorigenesis. The objective of the study is to evaluate expression of Claudin-1 protein in urothelial carcinomas and its correlation with the invasion of urothelial carcinoma to the bladder wall.

Methods: This is a retrospective descriptive study that included Sixty five paraffin embedded blocks of urinary bladder tissue from the pathology laboratory, Suez Canal University Hospital. Paraffin blocks included 14 cases of non-invasive urothelial carcinoma and 51 cases of invasive urothelial carcinoma. The blocks were evaluated histopathological prognostic factors and stained by Claudin-1 monoclonal antibody by immunohistochemical method.

Results: Claudin-1 protein was significantly overexpressed (p<0.05) in cases of invasive urothelial carcinoma compared to non-invasive urothelial carcinoma. Claudin-1 was significantly correlated with tumour stage, however; it did not correlate with tumour grade, age of the patient, or histological architecture of urothelial carcinoma.

Conclusion: Claudin-1 protein is overexpressed in invasive urothelial carcinoma and could be proposed as a good prognostic factor that might contribute to progression of urothelial carcinoma.

Policy of full disclosure: /n

**ABSTRACT TITLE:**
Pathological study of plasma cell neoplasms and evaluation of the positivity of CD56

**ABSTRACT TEXT**
Objective: As there is a lack of studies on plasma cell neoplasms in Damascus University Hospitals and the pathology department in Al-Nazari, the aim of this study is to evaluate CD56 positivity in multiple myeloma (MM) and plasma cell lesions.

Methods: 90 biopsies of plasma cell neoplasms from bone marrow or soft tissues had been sent to the pathology laboratory, Suez Canal University Hospital, from October 2017 to August 2018. The samples were sent to the surgical pathology lab for histological examination. Immunohistochemical staining for CD56 (1:100 dilution) was performed by experienced cytopathologists. The level of concordance with the histopathological diagnosis was high, with only three cases with different diagnosis, namely one case of oncocytoma versus Warthin’s tumor, one case of squamous cell carcinoma versus mucous-cell carcinoma and one case of basal cell carcinoma versus solid variant of adenoid cystic carcinoma.

Results: Out of seventy-seven cases sixty-nine were examined histologically in the pathology department. Comparison of cytoplogic and histologic diagnosis revealed concordance in sixty-six out of sixty-nine cases (96% concordance). There were only three cases with different diagnosis, namely one case of oncocytoma versus Warthin’s tumor, one case of squamous cell carcinoma versus mucous-cell carcinoma and one case of basal cell carcinoma versus solid variant of adenoid cystic carcinoma. There was no false positive or false negative cytopathologic diagnosis.

Conclusion: FNAC displays high diagnostic reliability in rare salivary gland tumors when performed by experienced cytopathologists. The level of concordance with pathological findings is satisfactory.

Policy of full disclosure: /

**ABSTRACT TITLE:**
Anti-inflammatory effect of ethanolic extract of moringa oleifera lam. Leaves in lipopolysaccharide-stimulated monocytes

**ABSTRACT TEXT**
Objective: Moringa lam. is a plant widely distributed in many tropical countries over the world. It was shown to have anti-oxidant and anti-inflammatory properties. Gram negative oral bacteria exerts lipopolysaccharide (LPS) that can stimulate innate immune system cells and lead to inflammation. Previous studies showed that Moringa oleifera Lam. suppressed Escherichia coli LPS induced inflammation in mouse macrophages. Porphrymonas gingivalis is periodontopathic bacteria. Its LPS was shown to action via different toll-like receptor from E. coli. Effect of Moringa oleifera Lam. on inflammation induced by P. gingivalis LPS has never been tested. Objective of this study was to evaluate anti-inflammatory effects of ethanol extract of Moringa oleifera Lam. leaves in human monocytes stimulated with E. coli and P. gingivalis LPS.

Methods: Human monocytic cell line (THP-1) was pre-treated with 0.1, 1, and 10 ug/ml of ethanol extract of Moringa oleifera Lam. leaves for 2 hours before stimulated with 100 ng/ml of E. Coli LPS or with 1 and 10 ng/ml of P. gingivalis LPS for 24 hours. Levels of tumor necrosis factor-alpha (TNF-alpha) from the supernatants were evaluated by ELISA.

Results: Ten microgram per ml Moringa extract reduced TNF-alpha production induced by P. gingivalis LPS has never been tested. Objective of this study was to evaluate anti-inflammatory effects of ethanol extract of Moringa oleifera Lam. leaves in human monocytes stimulated with E. coli and P. gingivalis LPS.

Conclusion: Moringa extract at appropriate concentration can reduce inflammatory cytokine production induced by E. coli LPS. However, moringa extract failed to suppress TNF-alpha production induced by P. gingivalis LPS.

Policy of full disclosure: /

**ABSTRACT TITLE:**
Cytological diagnosis of rare salivary gland tumors: A retrospective 10-year study

**ABSTRACT TEXT**
Objective: The aim of this retrospective study is to investigate the diagnostic potential of fine needle aspiration cytology (FNAC) in the evaluation of rare salivary gland tumors and the concordance rate with histological findings.

Methods: A number of 2476 salivary gland tumor FNACs were performed in the cytology department during a 10-year span from 2007 to 2016. Pleomorphic adenoma and cystadendolympoma (Warthin’s tumor) were the most frequent diagnoses, while mucoepidermoid carcinoma, adenoid cystic carcinoma, acinic cell carcinoma and adenocarcinoma not otherwise specified were diagnosed less frequently. Rare entities included twelve mucoepitheliomas, eight oncocytomas, four basal cell adenocarcinomas, nine squamous cell carcinomas, three epithelial-myoepithelial carcinomas, three small cell carcinomas, three cases of Mucilidzu syndrome, seven Non-Hodgkin lymphomas (three MALT, three follicular and one DLBCL), twelve Schwannomas and fourteen metastatic carcinomas of unknown primary. All diagnoses of primary tumors were morphological. Immunocytochemistry was performed in eight out of fourteen metastatic carcinomas.

Results: Out of seventy-seven cases sixty-nine were examined histologically in the pathology department. Comparison of cytoplogic and histologic diagnosis revealed concordance in sixty-six out of sixty-nine cases (96% concordance). There were only three cases with different diagnosis, namely one case of oncocytoma versus Warthin’s tumor, one case of squamous cell carcinoma versus mucous-cell carcinoma and one case of basal cell carcinoma versus solid variant of adenoid cystic carcinoma. There was no false positive or false negative cytopathologic diagnosis.

The three discordant cases concerned the histologic type.

Conclusion: FNAC displays high diagnostic reliability in rare salivary gland tumors when performed by experienced cytopathologists. The level of concordance with pathological findings is satisfactory.

Policy of full disclosure: /
Objective: The concept of N stage was changed from the location of lymph nodes (LNs) to the number of metastasized LNs in the 8th edition of the AJCC TNM staging systems for distal bile duct cancer (P-BC). We evaluated the prognostic significance of the revised nodal staging system for D-BC and P-BC, and the additional prognostic significance of metastatic tumor burden and extranodal soft tissue extension (ENE).

Methods: A retrospective analysis was performed on two independent cohorts of surgically resected D-BCs and P-BCs. Cohort 1 (Seoul National University Bundang Hospital) consisted of 93 D-BCs and 90 P-BCs, and cohort 2 (Seoul National University Hospital) consisted of 84 D-BCs and 99 P-BCs. The number of total and metastasized LNs, the size of the largest LN metastases, and the presence of ENE were recorded, and correlated with the overall survival (OS) and progression-free survival (PFS).

Results: For cohort 1 D-BCs, the revised N stage was significantly associated with decreased OS (p=0.002) and PFS (p=0.001); however, the difference between N1 and N2 stages was not significant. Metastasis size≥1cm and the presence of ENE were associated with decreased OS (p=0.001 and p=0.001, respectively) and PFS (p=0.001, both). In cohort 2, metastasis size≥1cm and ENE were associated with decreased PFS (p=0.001, both), but not with OS. For P-BCs, no significant associations were found between the nodal parameters and survival in both cohorts.

Conclusion: LN metastasis size and the presence of ENE were significantly associated with decreased survival in D-BCs in both cohorts. Neither the current N staging system nor the additional nodal factors were correlated with survival for P-BCs. Including LN metastasis size and ENE in the pathology reports may provide valuable prognostic information for D-BCs in addition to the number-based pN stage.

Policy of full disclosure: /
**ABSTRACT TITLE:** To determine the histopathologic pattern of oligodendrogliomas at the University College Hospital, Ibadan, Nigeria over a seventeen-year period

**ABSTRACT TEXT**

Objective: To determine the histopathologic pattern of Oligodendrogliomas at the University College Hospital, Ibadan Nigeria over a seventeen-year period. Methods: Haematoxylin and Eosin Slides of all patients with clinical and radiological features of intracranial space occupying lesions were reviewed over a seventeen-year period. Formalin fixed Paraformal Embedded (FFPE) blocks were retrieved for all cases. The FFPE blocks were serially sectioned for immunohistochemical staining using mutant isocitrate dehydrogenase 1 (IDH-1 R132H), p53 and alpha Thalassemia Mental Retardation X-linked antibodies. Results: There were 10 histologically diagnosed cases of Oligodendroglioma. Oligodendrogliomas constituted 2.9% of Central Nervous System tumours and 0.07% of all diagnosed malignancies in our department. (3.00%) were males and 7 (7.00%) were females with a M: F ratio of 1:2.3. The median age of the patients was 22.4 years. Age span ranged 5 years - 64 years. Grade II Oligodendrogliomas accounted for 5 cases (50.0%) while Grade III (Anaplastic Oligodendrogliomas) accounted for the remaining cases (50.0%). All Oligodendrogliomas were supratentorial in location (100%), located in the various regions within the cerebral hemispheres. Immunohistohchemical staining showed positive expression of Giall Fibrillar Acidic Protein and Alpha Thalassemia Mental Retardation X-linked antibodies. There was no expression using mutant isocitrate dehydrogenase 1 (IDH-1 R132H) and p53 antibodies. Conclusion: Oligodendrogliomas are relatively rare central nervous system neoplasms seen in our hospital. All cases show a female predominance, supratentorial location, younger age group with atypical immunohistochemical expression of contemporary diagnostic immunohistohchemical markers used to attempt characterization. Oligodendrogliomas are relatively rare central nervous system neoplasms seen in our hospital. All cases show a female predominance, supratentorial location, younger age group with atypical immunohistochemical expression of contemporary diagnostic immunohistohchemical markers used to attempt characterization. Oligodendrogliomas are relatively rare central nervous system neoplasms seen in our hospital. All cases show a female predominance, supratentorial location, younger age group with atypical immunohistochemical expression of contemporary diagnostic immunohistohchemical markers used to attempt characterization. Oligodendrogliomas are relatively rare central nervous system neoplasms seen in our hospital. All cases show a female predominance, supratentorial location, younger age group with atypical immunohistochemical expression of contemporary diagnostic immunohistohchemical markers used to attempt characterization. Oligodendrogliomas are relatively rare central nervous system neoplasms seen in our hospital. All cases show a female predominance, supratentorial location, younger age group with atypical immunohistochemical expression of contemporary diagnostic immunohistohchemical markers used to attempt characterization. Policy of full disclosure: /
Objective: In recent times, there has been a remarkable increase in breast care seeking behaviour among African women mostly due to heightened breast cancer awareness. Physician, oncologist, surgeons and pathologist are confronted on daily basis with onus of deciphering between a trivial benign lesion and a more life threatening invasive carcinoma of the breast. This study determines the relative frequencies of the various benign breast conditions among patients who attended the Korle-Bu Teaching Hospital, Accra, Ghana.

Methods: This retrospective study included breast biopsy reports of all patients presenting with breast lumps between January 2006 and December 2013 at Korle-Bu Teaching Hospital, Accra, Ghana. The data was analysed using SPSS version 16.5 and Microsoft Excel 2010.

Results: A total of 2,805 patients within the age range of 1 and 86 (mean 26.93 ±11.03 years) presented with various forms of benign breast conditions (BBC). The modal age range of presentation of benign breast conditions was 20-24 (29.6%) with 65.0% of the patients below the age of 40 (mean age of 23.19±5.96 years) while 15.0% were aged 40years and above (mean age of 48.5±7.9 years). The commonest benign breast condition was Fibroadenoma (76%) occurring mostly in patients below 40 years (93.4%) with a predominant right breast preference (77.1% vs 73.3%; p=0.038). The second most common lesion was fibrocystic change (25%) where had been reported. The mechanism underlying the origin of villous adenoma in the urinary tract is still speculative. More studies will be needed to explore these tumors.

Conclusion: Soft tissue sarcomas are rare and complex because of their heterogeneity. The histological diagnosis is refined by the contribution of immunohistochemistry and molecular biology. A multidisciplinary approach is recommended. Policy of full disclosure: /
Intratumoral IgA-positive plasma cell infiltration is associated with aggressive features of hepatocellular carcinoma.

**ABSTRACT TEXT**

Objective: It has been recently demonstrated that accumulation of immunoglobulin A (IgA)-producing cells is associated with chronic inflammation and fibrosis in fatty liver disease and suppression of cytotoxic T-lymphocytes, supporting fatty liver-related hepatocarcinogenesis. In this study, we aimed to examine the infiltration status of IgA-positive plasma cells (IgA+PC) in human hepatocellular carcinomas (HCCs) and background chronic liver disease of various etiologies, and to correlate the IgA+PC infiltration status with the clinicopathological characteristics. Methods: Tissue microarrays of 305 surgically resected HCCs were immunostained for IgA, programmed cell death ligand-1 (PD-L1), keratin 19 (K19) and uroroskin plasmagranin activator receptor (uPAR). IgA+PC counts were counted per high-power field for each HCC and its corresponding non-neoplastic liver, and tumoral expression of PD-L1, K19 and uPAR were evaluated semiquantitatively. The immunohistochemical stain results were then correlated with the clinicopathological characteristics. Results: IgA+HCCs were seen in 207 (72.4%) of HCCs and 227 (86.0%) of non-tumorous livers, and there was no difference in IgA+PC infiltration status according to the etiology. As expected, IgA+PC counts were increased in non-neoplastic livers with cirrhosis (p=0.017) and higher porto-portal/periportal activity (p=0.006), and intratumoral IgA+PC counts were positively correlated with PD-L1 expression (p=0.071). In addition, intratumoral IgA+PC counts were significantly higher in HCCs with abundant intratumoral fibrous stroma (p=0.026), infiltrative gross type (p=0.017), portal vein invasion (p=0.008), and expression of K19 (p=0.041) and uPAR (p=0.006). Conclusion: Here we show that IgA+PC are present in HCCs and chronic liver disease of various etiologies, and that the presence of intratumoral IgA+PC is associated with advanced stage of HCC, such as vascular invasion, infiltrative growth pattern, and “stemness”-related and epithelial-mesenchymal transition-related marker expression. In conclusion, further research is required, tumor-infiltrating IgA+ cells may play an important role in HCC progression.

Policy of full disclosure: /
ABSTRACT TITLE:
Subacute thyroiditis: A possible complication of fine needle aspiration

ABSTRACT TEXT
Objective: To determine whether subacute thyroiditis can occur as a secondary complication to a recently performed fine needle aspiration. In addition, a literature review for well-documented complications following this procedure has been performed.

Methods: We have performed a comprehensive literature review for reported and well-documented complications that could follow the procedure of thyroid fine needle aspiration, and whether any cases of subacute thyroiditis have been described secondary to the procedure. This has been performed by searching PUBMED using the search headings: complications, thyroid gland, fine needle aspiration, PNA, subacute thyroiditis, granulomatous thyroiditis and de Quervain’s thyroiditis.

Results: After extensive review of the medical literature, to our knowledge, no cases of subacute thyroiditis have been described to occur following the procedure of fine needle aspiration.

Conclusion: Our overall findings suggest that subacute thyroiditis can arise secondary to a recent fine needle aspiration procedure. This conclusion may add to our understanding to the pathogenesis of the disease. In addition, it may add to the list of possible complications of this very commonly performed procedure.

Policy of full disclosure: /
Objective: Core needle biopsy (CNB) has become a standard for evaluation of suspicious breast abnormalities detected radiologically. Our aim was to evaluate the diagnostic performance of histological and radiological findings of breast CNB.

Methods: We analyzed medical records of breast CNB cases performed from year 2014 to 2017 in our institution. Cases were radiologically assessed using Breast Imaging-Reporting and Data System (BIRADS), and histologically using Reporting system of UK National Health Service Screening Programme (B1 to B6). To calculate false positive and false negative rates BIRADS 5 and 4 were considered positive, while BIRADS 3 and lower were considered negative for malignancy.

Results: There were 246 breast CNBs performed of which 18 were excluded due to missing BIRADS. Invasive malignant lesions (Bi5) were found in 145/228 (63.5%) cases. Of those 93/145 (64%) were assigned BIRADS 5; 47/145 (33%) to missing BIRADS. In situ malignant lesions (Bi4) were found in 42/228 (18.6%) cases and were designated mostly BIRADS 4 (37/42 cases), then BIRADS 3 and 2. In situ malignant lesions (Bi4) were assigned BIRADS 5; 47/145 (33%) to missing BIRADS. Invasive malignant lesions (B5a) were found in 145/228 (64%) cases and were assigned mostly BIRADS 5; 47/145 (33%) to missing BIRADS. Invasive malignant lesions (B5b) were found in 145/228 (64%) cases; of which 5/7 SP and 1 CP case had metastatic disease. Metastatic sites in SP and CP cases include lymph nodes (7), ovaries (7), abdominopelvic soft tissue (7), lung (4), vagina (2), adrenal (1), brain (1). Mean follow up was 19 months. 7 pts. died of disease [Stage I (1), III (4), IV (3)]. 4 pts. are alive with disease [Stage III (2), IV (2)], 12 pts. are alive with other disease [Stage I (7), II (4), IV (2)]. 21 of 226 cases had lymph node and/or PMSS by IHC.

Conclusion: Presence of heterologous elements played a critical role in aggressiveness. Metastatic disease is more frequent in SP cases; however, carcinoma is the most common component at metastatic sites. Further studies are necessary to determine if SP cases are biologically more aggressive and require additional therapy geared toward the sarcoma component.

Policy of full disclosure: /


**ABSTRACT TITLE:** Development of tumor cells on the 3D scaffold of modified gelatin with controlled architecture for cell migration

**ABSTRACT TEXT:** Objective: Three-dimensional bio-printing is one method for fabricating scaffolds that capture tumor heterogeneity. Biomaterials containing cells and other bioactive factors can be stacked to form 3D scaffolds that mimic native tissue. The outcome (total bilirubin ≥2 mg/dl). They were divided into two groups; Group 1: patients with biliary atresia who underwent Kasai procedure 3 months after Kasai Hepatoportoenterostomy (HPE) procedure according to total bilirubin and failed group (P0.048). Where, higher grades of fibrosis were associated with failed Kasai. By correlation between each grade of fibrosis and the stages of healing, high precision of succeeded outcome is contributed to grade 2 than grade 3 and grade 4 (P=0.016). Regarding morphometric analysis, a significant statistical difference was found between succeeded group and failed group (P=0.09). Conclusion: Early diagnosis of BA and accurate defining of liver fibrosis grades before Kasai operation has become a demand and a need to increase success rate and native liver survival. Policy of full disclosure: /

**SESSION No.** P-07  
**ABSTRACT TITLE:** A clinicopathological study of oropharyngeal squamous cell carcinoma associated with high-risk human papilloma virus: the Beijing Tongren Hospital study

**ABSTRACT TEXT:** Objective: To observe the clinicopathological features of oropharyngeal squamous cell carcinoma (OPSCC) associated with high-risk HPV(OPSCC-HPV) and evaluate the effect of in situ hybridization methods for HPV in pathological diagnosis. Methods: 11 cases of OPSCC-HPV were collected from January 2016 to April 2018. These cases are in accordance with the new WHO classification of head and neck tumours. The histopathologic features were analyzed. P16, Ki-67 and P53 were evaluated by Immunohistochemistry and HPV DNA was detected by ISH. HPV mRNA was evaluated by RNAscope. Results: OPSCC-HPV typically presents at an advanced clinical stage, 6 with cervical lymphadenopathy (large and cystic), 4 with tonsillar swelling, 1 with odynophagia. Microscopically the tumors exhibits distinctive non-keratinizing squamous cell carcinoma morphology. Nodal metastases in cervical were large and cystic. Capsule of lymph node were thickening. OPSCC-HPV arises from crypt epithelium and grows beneath the surface epithelial lining of tonsil as nests and lobules, often with central necrosis. Tumor cells displays a high N:C ratio and a high mitotic and apoptotic rate. Tumour nests are often embedded in lymphoid stroma and may be penetrated by lymphoid cells. 11 cases (11/11) were strongly positive for P16, Ki-67 index was >90% and focally positive or negative for P53. Seven cases (7/7) were negative for HPV DNA 6/11, one case(1/7) was focally positive for HPV DNA16/18. 9 cases (9/9) were strongly positive for HPV/VPN4/16, synchronously, one case focally positive for HPVmRNA18. Conclusion: OPSCC-HPV is a pathologically and clinically distinct form of head and neck squamous cell carcinoma showing an extensive lymph node metastasis. Microscopically the tumors exhibits distinctive non-keratinizing morphology, Immunohistochemical staining of P16 and Ki-67 was strongly positive, and P53 was focally positive or negative. OPSCC-HPV is caused by high-risk HPV, with type 16 responsible for all cases. Detection of high-risk HPV16 mRNA with RNAscope method in diagnosis and pathogen identification was higher sensitivity and specificity. Policy of full disclosure: /

**SESSION No.** P-19  
**ABSTRACT TITLE:** Langerhans Cell Histiocytosis revealed by atlanto-Axial osteolytic lesions

**ABSTRACT TEXT:** Objective: Langerhans cell histiocytosis (LCH) is a rare condition mostly seen in children and adolescents. Eosinophilic granuloma is one of its three clinical entities and is considered as a benign osteolytic lesion. Many reports of patients with spine histiocytosis are well documented in the literature; it is not the case of atlantoaxial localisation. Methods: A 4-year-old boy without significant medical history was admitted for limited neck motion since 3 weeks. The physical examination showed an irreducible torticollis with analgesic attitude of cervical spine. There was no tumoral syndrome and the neurological examination as well as skin examination and laboratory tests were normal. The magnetic resonance imaging (MRI) of cerebro-spinal cord uncovered an infiltrative mass involving the C2 disc extending to the surrounding soft tissues leading to an increase in C1-C2 space, without compression of the spinal cervical cord. Complement C7 showed a fragmented disc with important C1-C2 dislocation. The odontoid and mass biopsy was performed by endoscopic guidance. Results: Histological features were consistent with inflammatory eosinophilic granuloma. The positivity of the immunostain by the antibody anti Ps100 and the antibody anti CD1a confirms the diagnosis of LCH. The patient was successfully treated with systemic chemotherapy and surgery. Conclusion: Atlantoaxial LCH is a rare entity in the diagnosis of this disease may lead to progressive neurological deterioration and increasing compression affecting largely the prognosis. The combination of chemotherapy and surgical procedure seems to be an effective treatment in such lesions. Policy of full disclosure: /
Malignant deciduoid mesothelioma: An unusual entity

Objective: Primary malignant deciduoid mesothelioma is a rare subtype of epithelial mesothelioma characterized by cytological features resembling decidualized epithelium. Methods: We report a case of primary malignant deciduoid mesothelioma in a 57 years old male patient with no history of asbestos exposition. Clinical examination and imaging revealed ascites with a slight small bowel thickening. An exploration surgery was performed. The small bowel wall appeared normal; peri toneal and epiploic biopsies were done. On histopathological examination, they both showed a diffuse proliferation composed of discohesive large epithelial cells. The cytoplasm was dense and eosinophilic; the nuclei were irregular, with clumped chromatine and prominent nucleoli. Mitotic figures were frequent. Totic figures were numerous (9/10HPF) with some atypical figures. On immunohistochemistry, the cells were diffusely positive to cytokeratin AE1/AE3, calretinin (nuclear and cytoplasmic stain), podoplanine (membranous staining), EMA. Staining with cytokeratin 5/6 and vimentine was patchy. Staining with Cytokeratin 7, Cytokeratin 20, CDX2, desmin, CD56, anti-hepatocyte, RCC, PSA were negative. Based on clinical features combined to morphological and immunohistological features, the diagnosis of primary malignant deciduoid peritoneal mesothelioma was made. The patient is on chemotherapy. He currently has a 5 months survival. Results: Primary malignant deciduoid mesothelioma was first described in young women without history of asbestos exposure in peritoneum and was thought to be a distinct clinicopathological entity with an ominous prognosis. Its clinical presentation and imaging are nonspecific. Histopathological examination and immunohistochemistry are crucial to determine this diagnosis and to exclude differential diagnoses. On morphological features, it is characterized by large cells with abundant glassy eosinophilic cytoplasm resembling decidualized cells. Its clinical presentation and imaging are nonspecific. Histopathological examination and immunohistochemistry are crucial to determine this diagnosis and to exclude differential diagnoses. On morphological features, it is characterized by large cells with abundant glassy eosinophilic cytoplasm resembling decidualized cells. The immunophenotypic profile is similar to other epithelioid mesotheliomas. Treatment is based on surgery, chemotherapy and radiotherapy. The prognosis is the same as other epithelioid mesotheliomas, and seems to depend on histological grade. Conclusion: We highlight through this case a particular variant of epithelioid mesothelioma that can be easily confused with necoplastic and non-neoplastic lesions. Policy of full disclosure: /
ABSTRACT TITLE: EBV-positive nodular sclerosis Hodgkin’s lymphoma associated with bladder neuroendocrine carcinoma: A case report

ABSTRACT TEXT: This study aimed to report a case of nodular sclerosis Hodgkin lymphoma (HL) associated with bladder neuroendocrine carcinoma. Methods: A 50-year-old man was referred to Salah azziez Institute (Tunis, Tunisia) due to gradually increasing inguinal lymphadenopathy in April 2017. Scintigraphy with SPECT – CT imaging scans was used in the diagnosis. Results: A first screening, including a bladder neuroendocrine neoplasm coupled with magmas of left pelvic and inguinal lymphadenopathy intensely fixing the radiotracer. A partial cystectomy was performed with bilateral inguinal lymph node dissection. Histopathological study and specific immunohistochemical staining test detected a grade 3 bladder neuroendocrine neoplasm infiltrating mesocele layer. Left iliac and inguinal lymph nodes contained an (EBV-LMP-1) positive nodular sclerosis Hodgkin’s lymphoma. Chemotherapy using VIP protocol remains the first-line treatment which may be active on both Hodgkin lymphoma and neuroendocrine carcinoma. Conclusion: In our knowledge we report the first case of association between bladder neuroendocrine carcinoma and an EBV positive nodular sclerosis Hodgkin’s lymphoma involving the iliac and inguinal lymphadenopathy is very rare form of association tumors. The clinical diagnosis is not specific, on histological and immunohistochemical evidence as there are no signs.

Policy of full disclosure: /
Hepatocellular carcinoma: A retrospective comparison of grade with other prognostic factors

ABSTRACT TEXT

Objective: Hepatocellular carcinoma (HCC) is one of the most common malignancies worldwide and its incidence is continuing to rise. Grading is an essential prognostic factor required which has traditionally been stratified according to the Edmondson and Steiner criteria but increased understanding of the biological behaviour of HCC has led to adoption of the three tier World Health Organisation (WHO) guidelines by the Royal College of Pathologists. In this study, our aim is to analyse the epidemiology and to correlate prognostic features with WHO grades: well, moderately-poorly differentiated HCC.

Methods: All patients who underwent liver resections from January 2010 till 2016 were identified from the surgical pathology database. Serology, morphology and grading according to the WHO classification were recorded.

Results: Thirty-six liver resections contained HCC, of which the commonest grade was well differentiated (32/36) followed by moderately-poorly differentiated (3/36). All cases were newly diagnosed except one which was of previous histological documentation. None of these cases showed any evidence of cirrhosis. The most common grade was well differentiated with 32 cases and moderately-poorly differentiated cases showed 3 cases with well defined tumour boundaries. The mean age of well differentiated cases was 63.2 years and the moderately-poorly differentiated cases were 64.7 years. There were 101 trichilemmal cysts, 261 were within the scalp, 1 involves the scalp and skull and 3 were within the limits of the inner and outer tables of the skull. 4 lesions exhibited malignant features. There were 101 trichilemmal cysts, 74 epidermoid cysts, 21 dermal sinuses, 8 verruca vulgaris, 5 squamous cell papilloma, 4 seborrhoeic keratoses, 5 capillary haemangioma,3 compound naevi, 3 proliferating trichilemmal cysts, 2 blue naevi, 2 neurofibroma, 2 basal cell carcinoma, 2 angiofibroma, 2 fibroepithelioma, 2 fibrolipoma, 2 folliculitis decalvans and 1 case each of lipoma, dermoid cyst, fibromyxoma, epidermal cyst, angiolymphoid hyperplasia with eosinophilia, solitary fibrous tumour, dermal lipoma, myoepithelial proliferation, fibrous dysplasia, inflammatory fibroblastic tumor. No recurrence was seen except 1 lesion.

Conclusion: Involvement of skull although rare, scalp masses present a wide spectrum of that arise in all ages. Overall, the majority of these lesions are benign, and the presence of a malignant tumor or metastatic tumor presenting as a scalp and skull mass is rare. Lesions having intracranial/extracranial extensions may be treated with complete resection followed by skull reconstruction, and close follow-up is necessary.

Policy of full disclosure: /
**P-07**

**Abstract No.** 016

**Date**
15.10.2018 & 16.10.2018

**SESSION TITLE**
Head and neck pathology

**AUTHOR**
Nader, Farah

**ABSTRACT TYPE**
Poster

**Co-Author(s)**
Suhghayer, Maher
Almuhaisen, Ghaheer

**ABSTRACT TITLE:**
An adult male patient presented with malignant ectomesenchymoma of nasal cavity and metastasizing to the cervical lymph node and abdomen

**ABSTRACT TEXT:**
Objective: Malignant ectomesenchymoma (MEM) is a rare and rapidly progressing tumor consisting of neuroectodermal and mesenchymal neoplastic elements. It occurs mostly in children and adolescents, but rarely in adults. With about 50 cases, mostly involving children and infants, having been reported to date. Characterized by merged features of neuroectodermal and mesenchymal components.

Methods: We present a 53 year old male patient presented with malignant ectomesenchymoma of nasal cavity and metastasizing to the cervical lymph node and abdomen.

Results: A 53 year old male pt., had a hx. dated back to 2 months ago when he started to complain of right neck mass. The patient underwent Nasal polyp and cervical lymph node excision and both shows the same histological features. This tumor contains both rhabdomyosarcomatous and neuroblastic components.

The rhabdomyosarcomatous component is diffusely positive for desmin, and myogenin suggesting that this component is of alveolar subtype. The neuroblastic component displays rosette formation especially in the cervical lymph node biopsy; where the central portions of the rosettes are positive for Synaptophysin. The neuroblastic component is also diffusely positive for CD56, PGP and focally positive for NeuN.

The tumor cells are negative for S100, GFAP, CD99, CK and NSE.

Conclusion: A 53 year old male patient presented with malignant ectomesenchymoma of nasal cavity and metastasizing to the cervical lymph node and abdomen with about 50 cases, mostly involving children and infants, having been reported to date. Characterized by merged features of neuroectodermal and mesenchymal components.

Policy of full disclosure: /}

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**P-15**

**Abstract No.** 016

**Date**
17.10.2018 & 18.10.2018

**SESSION TITLE**
Dermatopathology

**AUTHOR**
Oluwole, Olabode

**ABSTRACT TYPE**
Poster

**Co-Author(s)**
Abimiku, Bawa
Mukthar, Umcar

**ABSTRACT TITLE:**
Kaposi sarcoma in retroviral positive patients: Histopathological analysis

**ABSTRACT TEXT:**
Objective: To demonstrate that Kaposi sarcoma is the most common AIDS-related cancer in our environment

Methods: This is a ten-year retrospective histopathology study of all Kaposi sarcoma cases diagnosed between 2001-2009 in the Department of Histopathology, University of Abuja Teaching Hospital, Gwagwalada, Nigeria. Haematoxylin & Eosin stained slides were reviewed, studied and reviewed blindly by three consultants.

Results: A total of 31 patients (16 males and 15 females) retroviral patients' whose ages ranged from10-70 years with a mean age of 40 years. The peak age at diagnosis was in the fourth decade. The youngest patient is a female aged 16 years. The commonest site was in the lower limbs 19(61.2%), this was followed 7 (22.5%) unspecified sites, others sites were upper limbs and head and neck respectively. All the tumours were Kaposi sarcoma. The facility to detect KS-associated herpesvirus and viral antigen latency-associated nuclear antigen in the biopsy is not available in our institution as the time of this study; the diagnosis was made purely on Haematoxylin & Eosin stained slides.

Conclusion: AIDS-associated Kaposi sarcoma is common in our environment, it can be diagnosed in a resource-limited setting using traditional Haematoxylin and Eosin stained slides.

Policy of full disclosure: /

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**P-24**

**Abstract No.** 016

**Date**
15.10.2018 & 16.10.2018

**SESSION TITLE**
Hepatopathology and Biliary System

**AUTHOR**
Rehman, Abdul

**ABSTRACT TYPE**
Poster

**Co-Author(s)**
Qamar, Samina
Shahnawaz, Usman
Iram, Samia
Naaz, Shahida

**ABSTRACT TITLE:**
HDAC2 Overexpression is Associated with Poor Disease-Free Survival in Stage I Lung Adenocarcinoma

**ABSTRACT TEXT:**
Despite tremendous advancements in therapeutic modalities, mortality from lung cancer still remains at the top of all cancers. Overexpression of Histone deacetylase 2 (HDAC2) has been associated with tumorigenesis and cancer progression in various human cancers. The objective of this study was to investigate the expression of HDAC2 in lung adenocarcinoma and to explore its relationship with various clinicopathological variables and prognosis of patients with lung adenocarcinoma.

Methods: We examined HDAC2 protein expression immunohistochemically in tissue microarrays consisting of 170 cases of lung adenocarcinoma and interpreted using a semiquantitative scoring system. Chi-square test, Kaplan-Meier method and Cox Proportional Hazard Model were used for statistical analyses. For statistical analysis, immunoreactive scores of < 6 and ≥ 6 were considered low and high HDAC2 expression respectively.

Results: Almost all included cases of lung adenocarcinoma had positive immunoreactivity for HDAC2, and 101 (59.41%) of 170 cases expressed high HDAC2 expression. Although no significant association was observed in survival analyses of all stage group, however, the subgroup analyses stratified by tumor stage revealed that high HDAC2 expression was significantly associated with poor disease-free survival in stage I subgroup (p = 0.049, log-rank test). No significant correlation between HDAC2 expression and various clinicopathological parameters were found.

Conclusion: Our study suggested that HDAC2 is overexpressed in lung adenocarcinoma and might be closely related to carcinogenesis and prognosis of lung adenocarcinoma and it may serve as a potential prognostic marker for early disease management, especially in stage I lung adenocarcinoma patients.

Policy of full disclosure: /
ABSTRACT TITLE:
Urinary bladder paraganglioma

ABSTRACT TEXT
Objective: To focus on a rare entity and define the anatomo-clinical features of urinary bladder paraganglioma

Methods: We are reporting here a quite rare case of paraganglioma of the urinary bladder that presented an adult woman

Results: A 45-year-old female presented with a macroscopic isolated clot haematuria with no other urinary or general signs. A cystoscopy was done, showing a single trigonal tumor with a large implantation base. The histological examination of the chips made in full tumor as well as at the level of the base, showed a vescical mucosa bordered by a regular urothelial coating. The chorion and the muscularis are the site of a tumor proliferation organized into alveolar structures within a richly vascularized stroma. The tumor cells are polygonal, with abundant and finely granular eosinophilic cytoplasm. The nuclei are rounded, polymorphic and nucleated. An immunohistochimical study was performed, showing diffuse and intense expression for chromogranin and synaptophysin. These aspects are in favor of a bladder paraganglioma.

Conclusion: Paraganglioma of the urinary bladder is a rare tumour of the bladder, tend to be functional and occur mostly in young adult. It's a lesion that may be misdiagnosed as urothelial carcinoma in transurethral resection specimens. It needs to be fully investigated before embarking on any surgical procedure.

Policy of full disclosure: /
Objective: Some subsets of breast cancers are associated with amplification and overexpression of HER2 gene, which encodes a transmembrane glycoprotein receptor of EGF family, though it is associated with poorer survival, its presence provided an opportunity for molecular targeted therapy.

We attempted to evaluate HER2 expression pattern of breast cancers in Ahmadu Bello University Teaching Hospital, Zaria.

Methods: A three year retrospective study, all slides of breast cancers diagnosed including immunohistochemistry were retrieved and reviewed. A data was analysed using Microsoft excel sheet. HER2 expression was determined using semi quantitative assessment of staining pattern and intensity with scores of 0, +, 1+, 2+, and 3+.

Results: A total of 234 cases were seen and immunohistochemistry for hormone receptors was positive in 2 cases in 149 (59.8%) cases. 65 (46.4%) cases were positive for HER2 overexpression (Score of +3) were as 49 (35%) cases were negative with 42 and 7 cases scoring 0 and 1+ respectively. The result is equivocal for 25 (18.6%) cases was +1 (range of +2).

Conclusion: HER2 overexpression is relatively higher than the reports in many local literatures and abroad. However, the high equivocal cases provide the need for further tests in situ hybridization which is very limited and expensive in resource poor countries. Policy of full disclosure: /
Objective: Uterine cervical cancer is the fourth leading cause of cancer deaths in women worldwide. In our country, it is the second most common cancer in women. Uterine cervical smear remains an effective and widely used method for early detection of precancerous and cancerous lesions. However, there was no study to perform the quality assurance of cervical smear until now in Mongolia. Therefore, we studied the quality assurance of uterine cervical cytology by quality control model in cytopathological laboratory of Ulaanbaatar.

Methods: Firstly, 400 glass slides from four different cytopathological laboratories of Ulaanbaatar were randomly selected. The collected each slides were re-screened blindly by two cytologists according to “Bethesda system-2014” classification, independently. Secondly, 20 glass slides of cervical smear, the diagnosis was approved by histopathology were distributed to same four (A, B, C, D) laboratories. Each chosen slides were evaluated by four cytologists, with hidden clinical information, independently. The results were evaluated by the Category of Diagnostic Conformances.

Results: Of the 400 slides, 325 (81.25%) slides were as satisfactory and 75 (18.75%) slides were unsatisfactory related with follows: 53 (70.7%) were absence of endocervical cells, 19 (25.3%) were absence of adequate squamous cells, and 1 (1.3%) were artifacts which affects all smear etc. The sensitivity of A, B, C and D hospitals were 87.5%, 93.3%, 93.3%, and 93.3%, respectively. The specificity of A, B, C and D hospitals were 85.7%, 95.7%, 75%, and 66.7%, respectively. The agreement of cytological diagnosis was moderate (k=0.55), moderate (k=0.43), fair (k=0.37), and fair (k=0.33) in A, B, C, and D hospitals, respectively.

Conclusion: There is a need for specialist training in hemopathology as well as the establishment of well-equipped facilities for accurate and cost effective diagnosis.

Policy of full disclosure: /
ABSTRACT TITLE: Two cases of family Hirland-Lindau syndrome

ABSTRACT TEXT: Objective: Hirland-Lindau disease (VHL) is a hereditary disease, which is characterized by the development of multiple benign and malignant tumors of the central nervous system (30-70%), the eye's retina (75%), kidneys (25%), pheochromocytoma (7%) and neuroendocrine tumor of the pancreas cyst (2%). The disease was described for the first time in 1935. It happens with a frequency of 1 case per 36,000 people. Autosomal dominant inheritance in 80% of cases occurs due to a mutation in the 3p25. 26, where the VHL gene is localized. Another 20% of cases of Hirland-Lindau disease occurs due to sporadic mutations, when patients do not have a family anecdote. We described two cases of the disease, both belong to the first type. In the presented family cases, we observed 1 type of disease with the presence of multiple haemangioblastomas without combination with pheochromocytoma. Methods: Methods and results: The first case was observed in Novosibirsk. Patient F. was born in 1979. She considered herself to be sick since 1998. When the patient was diagnosed with neurosurgical symptoms, she was operated because of the formation of the posterior cranial fossa, which morphologically turned out to be a hemangioblastoma. After 1 year, the patient developed marked neurological symptoms during the examination of multiple metastasis found on the carotid area and spinal cord were verified. In 2004, a lesion of the thoracic spinal cord was detected at the T5 level. In 2013, MRI revealed a growth of tumor in the posterior cranial fossa. And in 2017 there was a growth of a tumor in the upper thoracic and cervical spinal cord. In all cases, morphologically, tumoral representation was hemangioblastoma. In addition to this, in 2017 the son of patient F., who was born in 1997, turned to the clinic with neurosurgical symptoms and MRI signs of intramedullary solid-cystic formation of the C2 vertical level, which turned out to be a hemangioblastoma in the study of the operating material. Later, a genetic study of the tumor material of these patients was held and a mutation in the VHL gene was detected, this confirmed the nature of the disease.

The second case was observed in Moscow. Patient Z. was born in 2003. He was admitted to hospital in 2015 with neurologic symptoms. With the help of MRI, a tumor was found in the posterior cranial fossa, while morphological examination was found hemangioblastomas. A year later, the patient's father, who was born in 1980, addressed the same clinic with the emerged neurological clinic, which had a tumor in the thoracic spinal cord. After the morphological research, the diagnosis of hemangioblastomas was confirmed. In this family, the diagnosis of the Hirland-Lindau syndrome was confirmed with the help of genetic research.

Results: In all cases presented by us, with the help of the standard morphological research was revealed a diagnosis of hemangioblastomas (WHO-C20-(C-20) code 9151/1 (Fig. 1)). After the ICC research, positive reactions were obtained on tumor cells with antibodies to C04D (Fig. 2), D2-40 (Fig. 3), on a part of the cells to 5100 (Fig. 4). As an example, the patient's material was taken into the report.

Conclusion: The morphological and immunohistochemical research of the material of these patients was held and a mutation in the VHL gene was detected, this confirmed the familial nature of the disease.

Policy of full disclosure: /
**ABSTRACT TEXT**

Objective: Despite advances in management, breast cancer remains the leading cause of cancer death among women worldwide. Over 70% of all cancers deaths occur in low and middle income countries where and management of breast cancer patients in the developing world has limitations due to lack of availability of quality ER and HER2 immunohistochemistry (IHC) diagnostic assays to justify therapeutics.

The initiative described in this communication was initiated in 2015 and aim to bridge the Gaps identified in Breast Cancer management in Ivory Coast and by extension to countries from the western part of Sub Saharan region.

Methods: The design of this plan was established to address immediate, medium and long-term problems.

- **Immediate plan:** In partnership with Roche, histotechnicians where trained to interpret under the microscope.
- **Medium plan:** To ensure quality will maintain all participants were registered to the breast module of the AFAQAP EQA for ER/PR as well as HER2 IHC and ISH. Pathologists initially trained were also involved in local training.
- **Long term:** To ensure an optimal management of all patients from the local and reference center through autonomy and local knowledge.

Results: Impress results were obtained in a real short time with a dramatic reduce in time to results from 24 weeks to 3 weeks. Participation to the AFAQAP demonstrated the ability of the labs to perform high quality IHC. SOP were set in all references labs to improve and maintain an optimal sample management, not only within the pathology lab but from the surgical theatre to the slide interpretation under the microscope.

Following introduction of best practices as well as all training activities the current Breast Cancer molecular subtyping show the following numbers: Tripe Negative: 37,19%, Hormonal positive: 46,31%, HER2 positive: 19,9%.

Conclusion: As a final result access to targeted therapy did increase in a high extend with now up to 15% of the patient who accede to HER2 targeted therapy whereas it was less than 1%.

Policy of full disclosure: /
Objective: To describe the anal cytology findings in HIV positive MSM attending comprehensive care clinics in Nairobi.

Methods: A cross-sectional-descriptive study was done. A total of ninety four HIV positive MSM who met the inclusion criteria were recruited using respondent-driven sampling. Conventional smears were prepared for anal cytology and stained with Pap stain.

Results: Ninety four eligible participants who gave consent were included in the study. Forty (44%) showed normal anal cytology, 51 (56%) had abnormal anal cytology as follows: ASC-US, 16(17.6%), LSIL, 29 (31.8%) and HSIL 6 (6.6%), while 3 (3.2%) had unsatisfactory smears.

Conclusion: High incidence of abnormal anal cytology was reported in this study, similar to that reported in western countries. Exfoliative sampling of the anal-rectal transformation zone can detect squamous intraepithelial lesions.

Policy of full disclosure: /
ABSTRACT TITLE: Next generation sequencing in non-small cell lung cancer

ABSTRACT TEXT
Objective: New generation sequencing (NGS) can be an important tool for identification of multiple alterations in a single quick, relatively low cost program. We compare our experience with NGS in non-small cell lung cancer (NSCLC) with traditional testing.

Methods: 44 paraffin samples from 39 NSCLC patients were analyzed by NGS: 26 adenocarcinomas, 8 squamous, 2 large cell neuroendocrine and 3 cases of nonspecific (NS); 10 patients were previously studied for EGFR (Cobas 4800, Roche), ALK, ROS1 and RET (Vysis, Abbott Molecular). Controls were included for KRAS, NRAS and BRAF gene mutations. A customized panel was designed to detect structural variants (2 KRAS [G12D, G12A] and 1 LKB1 [K83*]); neuroendocrine carcinomas, 2 translocations (RET and MAP2K2), MET, MYC, NTRK1, NTRK2, NTRK3, MAP2K1, MAP2K2, PDGFR, PTEN, ROS1, RET, SOX2, TPSS, and rearrangements (ALK, NTRK1, NTRK2, NTRK3, RET, ROS1), using SureDesign tool (Agilent). A library was created (SureSelectXT HS Target Enrichment System protocol, Agilent) and sequencing (Illumina technology, MiSeq). SureCall and Cartagena software (Agilent) were used for result analysis.

Results: NGS confirmed 6 translocations and 2 mutations in EGFR (L858R and T790M), already evidenced with traditional techniques, additionally detecting 18 structural mutations. We detected: adenocarcinomas, 2 translocations (RET and ALK-EML4 v3) and 14 structural mutations (3 EGFR, deletion exon 19, T790M, L858R), 7 KRAS [2 G12D, 4 G12C, 1 G12V], 2 LKB1 [D194Y], 1 BRAF [G464V] and 1 MET [R988C]; squamous carcinomas, 1 translocation ROS1-EZR and 3 structural variants (2 KRAS [G12D, G12A] and 1 LKB1 [K83*]); neuroendocrine carcinomas, 2 translocations (ALK-EML4 v2) and 1 structural mutation in ALK (F1174C); 3 NOS cases, 1 ROS translocation (variant SD2, R34 in ROS1-SDC4) and 2 mutations in KRAS (G12D, G12V).

Conclusion: The NGS is postulated as a feasible alternative for molecular diagnosis in clinical practice due to its sensitivity and specificity.
Policy of full disclosure: /
Lymphedematous Fibroepithelial Polyp of the Prepuce

Objective:
To present a rare case of lymphedematous fibroepithelial polyp of the prepuce, and the first published case of this type of pathological entity described in our country.

Methods:
- Grossing of the tissue with histological slides preparation using hematoxylin and eosin and special IHC stains.
- A 64-year-old male patient with a history of long standing urinary incontinence and long-term condom use presenting with a polypoid mass on the prepuce. The surgical specimen was presented by a skin excision with a papilloma appearance, fresh colored, measuring 5.5x2.5 cm. Histological sections revealed a fibro-epithelial polyoid structure with marked acanthosis and hyperkeratosis, with few intrapapillary lymphocytes. The stromal component showed marked oedema, increased number of stellate fibroblastic cells, occasional multinucleate mesenchymal cells, lymphoplasmacytic inflammatory infiltrate and scant mastocytes. Immunohistochemistry showed intense staining for muscle-specific actin, and focal staining for desmin.

Conclusion: After careful consideration of the histological appearance and IHC staining results corroborated with the clinical history of the patient, a diagnosis of lymphedematous fibroepithelial polyp of the prepuce was made. With only 21 cases to date reported in the literature, this case represents a rare finding, and should be considered in the differential diagnoses of papillomatous lesions of the penis when clinical relevance applies.

Policy of full disclosure:
Objective: The germinotropic lymphoproliferative disorder (GLPD) is a very rare, generally indolent entity involving atypical B-cells coinciding with Kaposi’s sarcoma-associated herpesvirus (KSHV) and Epstein–Barr virus (EBV). We present the hitherto 15th reported case, a 59-year-old immunocompetent man with localized mediastinal lymphadenopathy. Methods: Immunohistochemistry for CD20, CD79a, PAX5, CD3, CD138, CD38, CD10, BCL2, CD68, CD56, MUM1, BCL2, EMA, IgM, Igκ, Igλ, also some polyclonal interfollicular plasma cells. They are usually asymptomatic and they may occur in patients of all ages, without sex predilection. We describe a case of cavernous hemangiomata localized in the left cardiac ventricle. Results: We received a well-defined, polyoid lesion 1.2x1x0.8 cm in sizes, indicated by the surgeons as “myxoma of the left ventricle”. Multiple sectioning showed multiple dark-red sites and a relatively elastic consistency. Results: The histological examination of the lesion revealed large, dilated vascular spaces within cardiac muscle fibers. The majority of the vessels were thin-walled, while some of them had thick walls. Mitoses were not observed. The immunohistochemical control revealed CD31, CD 34 and FVIII positive endothelial cells, while Actin was positive only in the pericyties and calretinin was negative. Conclusion: Cardiac hemangiomata are benign lesions. Capillary, cavernous, arteriovenous and epithelioid subtypes have been described, showing the same histological findings as the hemangiomata found in other parts of human body. They are usually excised successfully, without recurrences.

**Abstract No.**

**Date**

17.10.2018 & 18.10.2018

**ABSTRACT TITLE:** Pulmonary mucinous cystic neoplasm with ovarian-like stroma: Once in a blue moon-case report

**ABSTRACT TEXT**

Objective: Mucinous cystic neoplasm of the lung is a rare well known entity in the WHO classification of lung tumors. It is defined as “a localized cystic mass composed of non

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**ABSTRACT TITLE:** Histopathological evaluation of skin neoplasms

**ABSTRACT TEXT**

Objective: To study the histopathological patterns of skin neoplasms. Methods: This is a retrospective cross sectional study performed at Department of Pathology, Patan hospital, Nepal from April 2011 to March 2016. Results: During the study period, we received 410 skin biopsies, out of which 214 (52.2%) were skin neoplasms. 195 (81.8%) were benign and 39 (18.2%) were malignant neoplasms. Incidence of keratinocytic tumors was highest followed by squamous papilloma. Among the malignant neoplasms, squamous cell carcinoma was most prevalent (46.1%) followed by basal cell carcinoma (15.3%). Skin neoplasms were present in all age groups. However, maximum number of benign tumors were found in 21-30 years and malignant in years 51-60 age groups. Mean age was 38 years and 56 years for benign and malignant neoplasms respectively.

Conclusion: Benign skin neoplasms are more common than malignant ones. Malignant neoplasms occur in older age group as compared to benign neoplasms. Intradermal nevus was the most common benign tumor followed by squamous papilloma. Among the malignant tumors, squamous cell carcinoma was most prevalent (46.1%) followed by basal cell carcinoma (15.3%). Skin neoplasms were present in all age groups. However, maximum number of benign tumors were found in 21-30 years and malignant in years 51-60 age groups. Mean age was 38 years and 56 years for benign and malignant neoplasms respectively. Conclusion: Benign skin neoplasms are more common than malignant ones. Malignant neoplasms occur in older age group as compared to benign neoplasms. Intradermal nevus was the most common benign tumor. Squamous cell carcinoma was most frequently encountered malignant neoplasm. Policy of full disclosure: This abstract is for an IAP bursary application.
ABSTRACT TITLE: Adequacy of colorectal cancer histopathology reports in Khartoum State, 2012-2014

ABSTRACT TEXT: Objective: To evaluate the adequacy of histopathology reports of colorectal carcinoma in Khartoum State, Sudan. 

Methods: This is a descriptive, retrospective, cross-sectional standard-based study, done at three separate labs in Khartoum State from Jan 2012 to Dec 2014. The data was reviewed using the minimal data set designed by the Royal College of Pathologist in 2014.

Results: One hundred and fifty six cases of complete surgical resection of colorectal carcinoma retrieved from the archives, 121 were colonic and 35 were rectal carcinomas. The core macroscopic item mentioned in the reports were the sites of operations (100 %) and maximum tumor dimension (97.4 %). The most common core microscopic items mentioned were histological tumor type (99.4 %), longitudinal resection margins status (98.1 %), maximum extent of tumor on end and mural spread (86.7 %), total number of lymph nodes (82.3 %) and how many of them involved by tumor (91.6 %). The least items mentioned in the reported cases were tumor perforation (3.8 %), relation of the tumor to the peritoneum reflection (2.9 %), circumferential margin status (7.7 %) and the highest lymph node status (1.9 %). None of the reports mentioned ancillary techniques.

Conclusion: The checklist reporting should be adopted to assure accuracy and completeness of histopathology reporting.

Policy of full disclosure: /
Objective: Solid pseudopapillary tumor of the pancreas (SPTPT) is a rare tumor of the pancreas accounting for less than 2% of all pancreatic tumors. It affects essentially young females. Disorganization of E-cadherin and β-catenin mutations, two key components of the Wnt signal transduction pathway have been implicated in the development of SPTPT. Our work aims to show that E-cadherin and β-catenin are the most useful immunostaining markers for the diagnosis of SPTPT.

Methods: This is a retrospective study involving 4 cases of SPTPT diagnosed at the department of Pathology of Fattouma Bourguiba University Hospital in Monastir, during a 13-year period.

Results: In our study, all patients were females. Three of them were under 20 years old of age. The tumor was located in the head of the pancreas in two cases, in the tail in one case and in the uncinate process of the pancreas in the last case. All patients underwent surgical treatment. In all cases, the tumor cells showed positive expression for SPTPT markers (vimentin, CD56 and CD10). CD99 was negative in all cases. All cases showed loss of expression of E-cadherin and both nuclear and cytoplasmic expression of β-catenin.

Conclusion: SPTPT almost consistently harbors β-catenin gene (CTNNB1) mutations in exon 3. Abnormal accumulation of β-catenin in the nucleus, caused by prolonged degradation of mutated β-catenin protein correlated with loss of E-cadherin, is observed in almost all SPTPT. Therefore, we propose that the immunohistochemical analysis should be extended to SPTPT specific markers such as the couple E-cadherin/β-catenin, especially if the tumor appears to have a neuroendocrine-like morphology.

Policy of full disclosure: /
Investigation of cancer associated fibroblasts in malignant melanoma and in cutaneous carcinomas

**ABSTRACT TITLE:**

**ABSTRACT TEXT:**

Objective: Cancer associated fibroblasts (CAFs) represent an activated sub-population of stromal fibroblasts; they constitute an important element in cancer microenvironment and seem to influence tumour biological behavior, in terms of local aggressiveness, recurrence, metastatic potential. CAFs contribute to immune suppression and drug resistance. Little is known about CAFs phenotype and pattern of distribution in cutaneous cancer, like malignant melanoma (MM), basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and malignant adnexal tumour (MAT). Methods: On 10 cases of MM, 10 of BCC, 6 of MAT (1 porocarcinoma, 1 trichilemmal carcinoma, 1 hidradenocarcinoma and 3 sebaceous carcinoma), we investigated the CAFs phenotype based on their histology and immunohistochemical expression of their known markers like alpha-smooth muscle actin (α-SMA), FAP (fibroblast activating protein), PDGFRα (platelet-derived growth factor receptor alpha), PDGFR-beta, CD10, vimentin, desmin. Results: The immunohistochemical expression profile of the stromal spindle/fusiform cells in this tumors were examined for all 9 markers. The intensity of the immunostaining for stromal fibroblasts was categorized in 4 classes - negative, weak, moderate and strong. The quantity of stromal spindle cells was assessed as follows: none, sparse, moderate, numerous. We characterised each histological type of tumor in terms of the immunostaining results. The MM subgroup was defined by a strong expression of FAP, FSP1 and PDGFR-beta; whilst the BCC subgroup had a strong expression for FAP, PDGFR-alpha and alpha-SMA; the SCC subgroup showed a strong expression for alpha-SMA and FSP1 and the MAT subgroup showed strong expression for FAP. Finally, we correlated a histopathological prognostic factor - the maximum tumor thickness, with the immunohistochemical expression of CAFs in the examined lesions. Conclusion: Our work suggests that the expression pattern of CAFs has a crucial role in biological behavior in malignant cutaneous tumors. This work was supported by a grant of Romanian Ministry of Research and Innovation, CUD-UEFISCDI, project number 61PCCDI-2018 PN-III-P1-1.2-PCCDI-2017-0341, within PNCDI-III.

Policy of full disclosure: / 10.2018

Malignant mesothelioma incidence, demographic and pathological characteristics in Bosnia and Herzegovina

**ABSTRACT TITLE:**

**ABSTRACT TEXT:**

Objective: This abstract this is for an IAP Bursary Application. There are very scarce epidemiological, pathological, and clinical data for malignant mesothelioma in Bosnia and Herzegovina. We present 10 years epidemiological and pathological data about malignant mesothelioma from a tertiary level institution in Bosnia and Herzegovina.

Methods: Medical records from the Department of Pathology, for 10 years period (2007-2017) were searched for malignant mesothelioma cases. We recorded demographic, pathological and epidemiological characteristics for malignant mesothelioma, based on the population number covered by our institution (approximately population number covered by our institution 200 000).

Results: We recorded 32 new cases in 10 years period. There were between 1 and 5 new cases per year, average 3.2 new cases per year, per 1 200 000 population (crude incidence rate 2.7/1 000 000 persons/year). The patient’s average age was 65.4 years (range, 52-79). The most affected group were older men, age 85 (59.4%). The male-to-female ratio is 3:5:1. But women are affected in much younger age than men (women average age was 57.4 years; range, 52-67). The most frequent type was epithelioid mesothelioma (90.6%), followed by biphasic (6.2%) and sarcomatoid mesothelioma (3.1%).

Conclusion: Malignant mesothelioma incidence in Bosnia and Herzegovina is lower than incidences reported in most European countries, and mainly affect older adult men. In Bosnia and Herzegovina mesothelioma in women appears at a much younger age than in men, and is not related to occupational exposure but most probably environmental factors. Perhaps, recent war destruction in our country has contributed to an increased exposure to asbestos, which has led to the occurrence of mesothelioma in the earlier age for women. If so, could we expect increasing incidence in the future?

Policy of full disclosure: /
Objective: Mammary myofibroblastoma is a rare benign mesenchymal tumor. Few cases of this type of tumor have been described in the English literature. We present a case of mammary myofibroblastoma.

Methods: A 37 year old patient was admitted due to a painless, slowly growing, palpable mass of her right breast. On clinical examination the tumor was firm in consistency, nontender and freely movable. FNAC was negative for malignancy. The tumor was excised with wide margins. On gross examination the tumor was well circumscribed, solid, grey-white in color and had a maximum diameter of 3.2cm.

Results: On microscopic examination the tumor consisted of fascicles of uniform bland short spindle cells with moderate amount of pale to eosinophilic cytoplasm. Nuclei were oval. Mitotic figures were few (0-2/hpf). Numerous bands of keloidal-like eosinophilic collagen separating tumor cells were present. There were few entrapped mammary glands at the tumor periphery.

The cytological results of ΕBUS staging of lung cancer and in the diagnosis of lymphadenopathy of the neck. Papanicolaou stain. The type of tumors was classified according to their immunohistochemistry.

Conclusion: Mammary myofibroblastoma occurs most commonly in women and men of older age. There are several histological variants including collagenized, cellular, myxoid, lipomatous, infiltrative, epithelioid, and decidual-like. The diagnosis may prove challenging especially in needle core biopsy material. Recurrence is unlikely following excision with clear resection margins. Malignant transformation has not been documented. Pathologists should be aware of the wide morphologic spectrum exhibited by mammary myofibroblastoma to avoid a misdiagnosis of malignancy.

Policy of full disclosure: /
Objective: Alveolar rhabdomyosarcoma (A-RMS) is the most aggressive of all categories of RMS. Histology diagnosis of ARMS is based on presence of alveolar pattern. Almost 70 to 80% of ARMS are characterized by PAX3-FKHR or PAX7-FKHR translocation. We attempted to study predictive value of histologic classification in determining the molecular characteristics of rhabdomyosarcoma.

Methods: Histopathology and molecular characteristics of 132 patients diagnosed with rhabdomyosarcoma were analysed from year 2013 to 2017. Two observers reviewed histology without knowledge of molecular test results. Sub-categorisation of all cases of RMS was attempted. Diagnosis of ARMS was based on alveolar pattern and nuclear changes.

Results: 79% of patients were less than 15 years of age. Age range was 1 to 50 years. 30% of patients diagnosed with RMS showed translocation positivity. 96% of histologically diagnosed ARMS showed positive translocation while 12.5% of histologically diagnosed ERMS showed positive translocation. 92% of histologically diagnosed ARMS showed alveolar pattern. However, only 56% of RMS with any amount of alveolar pattern (n=33/66) showed translocation positivity while 50% with this pattern were negative for either of the translocations.

Conclusion: Thus predictive value of histologic parameters in determining translocation status was not significant. 12.7% histologically diagnosed ERMS showed translocation for PAX3-FKHR while 44% histologically diagnosed ARMS did not show any evidence of translocation. Thus we recommend that molecular testing should be performed on all patients with RMS. It is a contentious issue whether to continue classifying histologically negative histologically diagnosed ARMS in ARMS category for therapeutic and prognostic purposes.

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<tr>
<td>P-06</td>
<td><strong>Abstract No. 022</strong>&lt;br&gt;<strong>Gynecological pathology</strong>&lt;br&gt;Primary benign phyllodes tumor of the vulva</td>
<td>Kilic, Asuman&lt;br&gt;Ahi Evran University Hospital&lt;br&gt;Dep't of Pathology&lt;br&gt;Kirsehir, Turkey</td>
<td>Poster</td>
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**ABSTRACT TEXT**

**Objective:** Breast lesions can be found in extramammary areas such as the axilla, anus, prostate, seminal vesicle, and vulva. It is still uncertain that proliferative mammary gland lesions including phyllodes tumor in the anogenital region originate from ectopic breast tissue or from local adenoid structures. In this report, a case of primary benign phyllodes tumor of the vulva is presented.

**Methods:** A 41-year-old female patient (G3P3) was admitted to our polyclinic due to a painless, slow-growing mass under the skin of the vulva which she first noticed 6 months ago. The mass was located between the labium majus and minus and was 3x4 cm in size. In the patient’s history, there were no breastfeeding, breast disease, menstrual irregularity, malignancy, adnexal contraception, and pregnancy. Laboratory tests (hormone panel, gynecological and breast cancer markers) were within normal limits. The lesion was excised and sent to the pathology laboratory for histopathological examination with a preliminary diagnosis of fibroma.

**Results:** Histology revealed biphasic tumor formation with typically extensive leaf-like papillary structures growing toward slit-like spaces under the skin. The slit-like spaces consisted of a double layer of epithelial and myxoid stroma. Immunohistochemically epithelial cells showed a positive reaction with ER, PR, and panCK; myoepithelial cells showed a positive reaction with SMA, CD10, and WT-1.

**Conclusion:** Benign phyllodes tumor of the vulva is rarely seen in this localization and has homologous features with the breast histopathologically and immunohistochemically. However, its histogenesis has not yet been fully understood. We think that the lesion can originate from anogenital mammary-like glands because it was located between the labium majus and minus and that a possible hormonal etiology may also play a role. Recurrence is rare with total resection of the tumor.

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<td>P-18</td>
<td><strong>Abstract No. 022</strong>&lt;br&gt;<strong>Urology</strong>&lt;br&gt;Variant histology of urinary bladder cancer: A retrospective study of 200 patients in Theageneio hospital</td>
<td>Nikolaidou, Anastasia&lt;br&gt;Anticancer Hospital&lt;br&gt;Thessaloniki&lt;br&gt;Greece</td>
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**ABSTRACT TEXT**

**Objective:** Tumors of the bladder consist mainly of urothelial carcinomas (90%) and a less extent of other malignant neoplasms. Variant histology applies both to urothelial variants and non-urothelial variants. It is important to identify them, as it has been recognized that variant histology can potentially affect patient treatment and patient outcome. Furthermore, the identification of variant histology can pose a challenge for the pathologist, as it can often lead to misinterpretation. Our aim is to evaluate the incidence and type of variant histology in bladder cancer.

**Methods:** We analyzed 200 patients under a period of 5 years (2013-2018). The sample consisted of 165 males and 35 females, diagnosed by pathologist Nikolaidou. The age range was 45-93 years old. We did not include cases, concerning metastasis from bladder cancer to other sites. **Results:** From the 200 specimens examined variant histology was diagnosed in 32 cases (16%). Variant histology of urinary carcinomas was diagnosed in 27 cases (13.5%). The main subtypes were: urothelial carcinomas with squamous (11 cases-5.5%) and with glandular (8 cases-4%), differentiation, followed to a lesser extent by micropapillary, sarcomatoid and clear cell (each of 2 cases) and plasmacytoid and nested variant (1 case respectively). Non-urothelial variants consisted 2.5%, namely 2 cases of pure squamous carcinoma (1%), 2 cases of small cell neuroendocrine carcinoma (1%) and 1 case of enteric type adenocarcinoma (0.5%). **Conclusion:** Even an individual subtype is rare, the total percentage of variant histology in bladder cancer is significant. After the publication of the WHO 2016 we found out an increase in the diagnoses made in our series. We expect the percentage of variant histology diagnoses to be increased in the following years, as awareness rises and molecular markers assisting in the differentiation of the various subtypes are emerging.

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<td>P-08</td>
<td><strong>Abstract No. 022</strong>&lt;br&gt;<strong>Urology</strong>&lt;br&gt;Hepatic epithelioid hemangioendothelioma: A rare vascular tumor</td>
<td>Ouedraogo, Aida Sandrine&lt;br&gt;Farhat Hached Hospital&lt;br&gt;Dept of Pathology&lt;br&gt;Sousse&lt;br&gt;Tunisia</td>
<td>Poster</td>
<td>Mokni, Moncef&lt;br&gt;Bouriga, Ayda&lt;br&gt;Bal Hadj&lt;br&gt;Khitla, Aya&lt;br&gt;Yacoub, Sara&lt;br&gt;Baccouch, Aïka&lt;br&gt;Mniri, Marwa&lt;br&gt;Bouachrine, Sirha</td>
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**ABSTRACT TEXT**

**Objective:** Hepatic epithelioid hemangioendothelioma (EH) is a rare low to intermediate grade malignant vascular tumor derived from endothelial cells. It is commoner in females and the average of patients is about 50 years. It is a slow growing tumor with an unpredictable outcome and the symptoms are not specific. We report a case of EH in a 32 year old woman diagnosed after histological examination of a liver nodule biopsy.

**Methods:** A 32 year old woman who had a past medical history of wegener’s disease with pulmonary and renal involvement, treated with immunosuppressive drugs for 2 years. The routine blood cell count and biochemical investigations (serum bilirubin, transaminases, alkaline phosphatase, and proteins) were disturbed. Hepatic Ultrasound of the abdomen showed multiple hypoechoic lesions in the right lobe. **Results:** An ultrasound-guided biopsy was done, which showed spindle to epithelioid tumor cells embedded in myxoid background. Focally, vascular differentiation was seen, with cytoplasmic lumina features. Immunohistochemistry showed a diffuse positivity for CD 34 and factor VIII antigen and focal positivity for cytokeratin, suggestive of hepatic epithelioid hemangioendothelioma. **Conclusion:** Hepatic epithelioid hemangioendothelioma represent a very rare vascular tumor of the liver. The behavior of this malignant tumor is uncertain and usually falls between that of benign haemangioma and that of malignant angiosarcoma. Differential diagnosis is made with other primary or secondary liver tumors. The definitive diagnosis is usually determined by histopathological examination.

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<td>P-02</td>
<td><strong>Abstract No. 022</strong>&lt;br&gt;<strong>Urology</strong>&lt;br&gt;Hormone Receptor and Human Epidermal Growth Factor Receptor -2 Status Of Breast Cancer: A Snap Shot From North East, Nigeria</td>
<td>Lawan, Aliyu&lt;br&gt;Gome State University&lt;br&gt;Dept. of Histopathology&lt;br&gt;Gombe&lt;br&gt;Nigeria</td>
<td>Poster</td>
<td>Abdulahi, Yusuf&lt;br&gt;Ali-Gombe, Musa&lt;br&gt;Aliu, Sani&lt;br&gt;Gudfi, Mohammed</td>
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**ABSTRACT TEXT**

**Objective:** There is a significant disparity in the tumour biology of breast cancer in Sub-Saharan Africa when compared with Caucasians. Molecular characterization of this cancer remains a critical and indispensable tool in patient treatment and prognosis. This study aims to study the pattern of hormonal receptor and human epidermal growth factor receptor-2 status in patients with breast cancer.

**Methods:** This is a cross sectional study which was conducted at the Department of Histopathology, Federal Teaching Hospital, Gombe. Seventy-eight cases of breast cancers of the 91 that had immunohistochemistry met the criteria for this study. The archival histological slides were reviewed. The clinical details were retrieved from the patients’ case notes and request cards. Immunohistochemistry results and slides of ER, PR and HER-2 where retrieved and reviewed. **Results:** Females were the most affected accounting for 76 cases (97.4%). Only two cases were male, the mean age at diagnosis is 50.5 years (SD-14.6 years). Invasive carcinoma (NIST) was the most common histological subtype and most women had 3 cancers. This was followed by grade-3 breast carcinomas. More than 80% of the 59 cases (88%) were hormone receptor positive. **Conclusion:** Hormonal receptor and HER-2 receptor status is of optimum importance in breast cancer management. This should be a routine for all breast cancers worldwide. There is need for partnership and collaboration in developing countries to meet this goal.

Policy of full disclosure: /
n samples were diffusely infiltrated by a
ern.

Careful examination is required to exclude benign tumors. 
tumors
not show a diagnostic immunoprofile, it is important first to exclude other

Conclusion: Since MPNST are morphologically heterogeneous tumors that do
revealed undifferentiated sarcoma features. Diagnosis was made only on the
2 remaining cases.

Results: The median age was 41 years (13
antibodies.

Methods: A retrospective study included 18 cases of MPNST diagnosed in our
morphological and immunohistochemical profile of these tumours.

Objective: Malignant peripheral nerve sheath tumors (MPNST) are rare and have
underprognosis. They usually arise from peripheral nerves and show variable
differentiation toward one of the cellular components of the nerve sheath
(Schwann cells, fibroblasts, and perineural cells). Because of their morphologic
heterogeneity and the lack of specific immunohistochemical or molecular
markers, histologic diagnosis is challenging. Our aim was to highlight morphologic
and immunohistochemical profile of these tumors.

Methods: A retrospective study included 18 cases of MPNST diagnosed in our
department from January 2000 to December 2016. Immunohistochemical study
was performed for all the cases. The panel included variably: desmin, actin,
myogenin, vimentin, CD34, EMA, cytokeratin, HMB45, MelanA, Ckit and Dog1
antibodies.

Results: The median age was 41 years (13-74 years). Male-to-female ratio was
equal to 0.7. Most cases (16 cases) were sporadic. Two 24-year-old patients
presented with neurofibromatosis (NF1). Lower extremities were involved in 7
cases, buttocks in 3 cases, trunk in 3 cases, pelvis in 3 cases and forearm in the
2 remaining cases.

The average tumor size was 190 mm (40-420 mm).

In 13 cases, typical morphology as well as immunohistochemical features have
easily led to diagnosis. For the remaining 5 cases, microscopic analysis
revealed undifferentiated sarcoma features. Diagnosis was made only on the
basis of immunohistochemical findings showing focal positivity for S100
protein and negativity for all the other markers. Presisting neurofibroma was
found in two cases.

Conclusion: Since MPNST are morphologically heterogeneous tumors that do
not show a diagnostic immunoprofile, it is important first to exclude other
tumors with similar histological features.

Careful examination is required to exclude benign tumors. Policy of full disclosure: /
Objective: The tumor growth depends on interactions between tumor cells and surrounding microenvironmental environment. Important role play cells of immune system, especially regulatory T cells (Tregs) influenced by transcription factor FOXP3. Tregs create host tolerance against tumor antigens by dampening the T-cell-mediated immune response. Among the most promising approaches to activating therapeutic antitumor immunity is the blockade of immune checkpoins. Control receptor PD1 (programme death cell protein) is expressed by activated T lymphocytes during inflammation and tumors. PD1 binds with ligands expressed by stromal cells, tumors and Tregs, which decrease immune reactions in tumor microenvironment. It facilitates growth of tumor cells. Therapeutic blockade of PD-1 or PD-L1 with monoclonal antibodies leads to durable tumor regressions in patients with several cancer types. 

Methods: We observed 95 malignant melanoma and 25 benign pigmented nevi. Melanomas were devided in four groups differed from deep of invasion (Breslow): pT1 (n=35), pT2 (n=21), pT3 (n=21), pT4 (n=18). Density of positive cells was evaluated in 1mm2 in “hot” spot regions in center and periphery of lesions. 

Results: We found out significant differences in expression of observed proteins FOXP3 and PD-L1 mainly between earlier stages (pT1, pT2) and advanced stages (pT3, pT4) of malignant melanomas. 

Conclusion: In our study we exhibited the increase density of FOXP3-Treg lymphocytes in the stromal microenvironment of melanoma in association with the vertical growth, which confirms their important role in the progression of this disease. We suppose that there is also important their redistribution towards the tumour periphery, which may facilitate melanoma propagation. Analysis also demonstrates increasing of PD-L1 expression especially in melanocytes and stromal lymphocytes especially in advanced stages of malignant melanoma. We expect PD-L1 positive lymphocytes cooperate with melanocytes during growing phase of melanomas. 

Policy of full disclosure: 

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Objective: Expression of FOXP3 and PD-L1 in cells of immune system, melanomas and pigmented nevi. Immunohistochemical study

**ABSTRACT TEXT**

Follow-up of thyroid nodules categorized as atypia of undetermined significance or follicular lesion of undetermined significance (AUS/FLUS): An institutional experience

**ABSTRACT TITLE:**

Follow-up of thyroid nodules categorized as atypia of undetermined significance or follicular lesion of undetermined significance (AUS/FLUS): An institutional experience

**ABSTRACT TEXT**

Objective: The Bethesda System for Reporting Thyroid Cytopathology is the standard for interpreting fine needle thyroid aspiration (FNA) specimens. The ‘atypia of undetermined significance/follicular lesion of undetermined significance’ (AUS/FLUS) category, known as Bethesda Category III, is a controversial and heterogeneous category of cases that are not clearly benign or malignant. It was initially associated with an increased risk of malignancy of 5-15%, but different results have emerged throughout the years.

Methods: We used the Clinical Looking Glass software to cohort a create and extract thyroid FNAs reports along with subsequent surgical management, to assess the histopathological correlation. These patients are fed to the Clinical Looking Glass software from the electronic medical records of Montefiore Medical Center. We included reports from January 2013 to December 2016. The data extracted is de-identified and exported in an excel file for analysis. We correlated the cytology diagnosis with the surgical pathology diagnosis and investigated the rate of malignancy along with appropriate management in this category.

Results: From 288 patients diagnosed with AUS, 39 patients (14%) had subsequent surgical treatment. From these, 29/39 patients (54%) had a benign surgical outcome, while 18/39 (46%) surgical diagnoses were malignant: 14/18 (77%) of these cases did not have a FNA diagnosis higher than AUS (see table 1) and had surgical resection. The risk of malignancy outcome for a study population was 4%. Only one patient had more than one lesion: papillary thyroid carcinoma (PTC), micro PTC, and a minimally invasive follicular carcinoma.

Conclusion: Our study showed that our institution’s risk of malignancy outcome for the Bethesda Category III is on the lower end of the classification, which is 5-15%. The majority of these cases had a PTC variant, comprising 95% of all cases. Our institutional experience compares to prior studies on risk of malignancy outcome.

Policy of full disclosure: 

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Objective: Epidermal growth factor receptor (EGFR) signaling plays an important role in various cancers, including hepatocellular carcinoma (HCC). We aimed to evaluate immunoeexpression of EGFR in HCC and surrounding non-tumor liver tissue and to correlate it to multiple clinico-pathologic data.

**ABSTRACT TEXT**

Methods: We analyzed 60 patients with HCC for serum level of alpha-fetoprotein (AFP), T status of the TNM classification, enlarged lymph nodes, vascular invasion, histological pattern, tumor grade and survival. 

Results: Nineteen patients (31.67%) were female and 41 (68.33%) were male ranging in age from 31 to 85 years, median 61.88±10.51. 

Conclusion: The study showed that expression of EGFR in lower percentage of tumor cells was associated to favorable prognosis, making it a potential prognostic marker and therapeutic target.

Policy of full disclosure: 

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Objective: Leiomyma is a benign mesenchymal tumor that frequently occurs in uterus in middle-aged and postmenopausal women but rarely detected in ovary. Leiomyoma arising primarily in the ovary is a rare, unilateral, usually small and incidentally seen neoplasm, clinically indistinguishable from subserous leiomyomas and ovarian fibromas, but histopathological confirmation, smooth muscle cells of ovarian hilar blood vessels, ovarian stromal smooth muscle cells, smooth muscle metaplasia of ovarian stromal cells and hormonal stimulation were suggested as a possible origin.

**ABSTRACT TEXT**

Objective: Leiomyoma is a benign mesenchymal tumor that frequently occurs in uterus in middle-aged and postmenopausal women but rarely detected in ovary. Leiomyoma arising primarily in the ovary is a rare, unilateral, usually small and incidentally seen neoplasm, clinically indistinguishable from subserous leiomyomas and ovarian fibromas, but histopathological confirmation, smooth muscle cells of ovarian hilar blood vessels, ovarian stromal smooth muscle cells, smooth muscle metaplasia of ovarian stromal cells and hormonal stimulation were suggested as a possible origin.

Methods: We present the case of a 41-year old woman at 37 weeks of pregnancy with a large ovarian mass discovered incidentally during at C/S delivery. Results: The ovarian mass measured 7 cm at its greatest dimension. Histological evaluation of the ovarian mass revealed a spindle cell tumor without atypia or mitosis. Immunohistochemical staining with antibodies against smooth muscle actin and desmin confirmed the leiomyomatous nature of the tumor. Conclusion: Primary ovarian leiomyoma is a very rare benign tumor. To our knowledge only 70 cases of this rare tumor have been reported and few cases have been reported in pregnant women, till date. Occurrence during pregnancy or delivery is more challenging for clinico-pathological diagnosis and operative management.

Policy of full disclosure: 

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ABSTRACT TITLE: A prospective study of the discordance between biomarker profiles of primary breast carcinoma in ipsilateral axillary lymph node metastases performed simultaneously in 50 treatment naive South African patients

ABSTRACT TEXT: Objective: To determine the discordance rate for oestrogen receptor, progesterone receptor, HER2/neu and Ki-67 proliferation index between the primary tumour and the nodal metastases in treatment naive patients. To investigate the difference in receptor profiles in HIV positive and HIV negative patients presenting with breast carcinoma and nodal metastases.

Methods: This on-going prospective study includes a total of 64 patients who have presented to the Charlotte Maxeke Johannesburg Academic Hospital Complex starting from 1 July 2017, with primary breast tumours and suspected ipsilateral axillary lymph node involvement. The cases have been assessed by a single pathologist. The hormone receptor status, HER2/neu status and Ki-67 proliferation index have been evaluated using immunohistochemistry and applying standardised guidelines for interpretation. FISH for HER2/neu equivocal cases has been employed.

Results: 49 patients are female with a mean age of 52.26 years. 88% (44/50) of the patients are African and 12% (6/50) white or mixed race. 68% of the patients (34/50) are HIV negative, 16% (8/50) are HIV positive and 14% (7/50) of patients' HIV status is unknown. The discordance rate in the molecular subtype of the tumour and the paired lymph node metastasis is 8% (4/50). Of the discordant cases, 3 cases are hormone- and HER2/neu-status discordant in the primary tumour and HER2/neu and one to luminal B. The remaining discordant case changed from luminal A in the breast to luminal B in the nodes.

Conclusion: Biomarker discordance has been observed in 8% of our patients. Expression of ER and HER2/neu displayed significant discordance with each other, for both PanNETs (p=0.012) and SPNs (p=0.001). CD163+ macrophages were more abundant in primary tumour than remote parenchyma (p=0.001). The AKT and AKT phosphorylated tumors had increased AKT phosphorylation compared to non-phosphorylated tumours (p=0.047). Similarly, in SPNs, higher intratumoral and peritumoral CD163+ macrophage counts were associated with increased proliferative activity, tumor size and stage, suggesting that CD163+ macrophages may play important roles in promoting the aggressive behavior of these tumors.

Policy of full disclosure: /
Institute of Health Sciences (BPKIHS), Dharan, Nepal

**ABSTRACT TITLE:**
Blood Component Separation Service: A New Experience at B. P. Koirala Institute of Health Sciences (BPKIHS), Dharan, Nepal

**ABSTRACT TEXT**
Objective: Blood component separation facility began dispatching its blood component units from 21st April 2013 at the new blood component separation service complex at BPKIHS. With the supply of blood components being finite and with the added recognition of a high rate of inappropriate use of blood component services around the world, there is a need to monitor and regulate these services.

Our study was conducted to identify blood component utilisation pattern in institute and to know about different blood components demand for future preparedness.

Methods: This retrospective study was conducted at BPKIHS, Dharan, Nepal for blood component dispatched from 21st April, 2013 -12th February, 2014. Blood components requisitions from all clinical department were reviewed regarding the specific component requested, blood group and socio-demographic profile.

Results: Among 3054 transfusion units dispatched, 1552 were males, 1498 females and 4 unspecified. Likewise, 1722 were Pack Cell Volume (PCV), 808 Platelet Rich Plasma (PRP), 523 Fresh Frozen Plasma (FFP) and 1 Cryoprecipitate (CP) dispatched respectively followed by Emergency ward for PRP. 197 (6.45%) requisition forms lacked the details of requesting department, while some even reveal multiple demands.

Conclusion: PCV of A positive blood group being the predominant blood component requested from NICU/PICU ward at the institute making most requests. Finally, these results could be useful for estimating the requirements for our newly established blood bank to meet the demand in future.

Key words: blood component, packed cell volume, transfusion units

Policy of full disclosure: /
Placental mesenchymal dysplasia associated with hepatic mesenchymal hamartoma: A case report

ABSTRACT TEXT
Objective: Placental mesenchymal dysplasia (PMD) is a rare condition with characteristics including placemomentgy, cirrhotic vessels of the chorionic plate and stem villi, and grape-like villous vesicles. It can be associated with viable fetus with normal karyotype, but there have been few reports about fetal abnormalities associated with PMD. So, we report a case of PMD associated with hepatic mesenchymal hamartoma (HMH) of fetus.

Methods: A 35-year-old woman was presented at 12 weeks gestation with abnormal sonographic findings suggesting hydatidiform mole and coexisting fetus. Follow-up was done with sonography, and further work-up was done including karyotyping of both placental and fetus, and quantitative analysis of tissue showing disomy with androgenetic/biparental mosaicism. The placenta was enlarged (1180g) and showed ectatic, tortous vessels on external aspect and appearance of a thick fibrous capsule. Microscopic examination demonstrated disomy in the villous connective tissue. The placenta and liver of stillborn fetus were performed after delivery.

Results: Sonographic findings on 27 weeks gestation showed heterogeneous thickening of placenta suggesting molar change and seaptered cystic masses in fetal abdominal cavity suggesting bilateral ovarian cysts. Both chorionic villous sampling and amniocentesis revealed a normal female karyotype (46,XX). There was stiletlike appearance in the dysplastic villi, with a 2-3 times excess paternally imprinted alleles, which is consistent with androgenetic/biparental mosaicism. The placenta was enlarged (1180g) and showed ectatic, tortous vessels on chorionic plate and higher distribution of hydroptic villi in a background of normal-appearing villous tissue. Microscopic examination demonstrated edematous villi with stromal overgrowth, numerous vessels in stem villi, and no trophoblastic proliferation. The cystic mass in fetal abdomen was a cystic mass of liver showing cystic wall composed of foam, myxoid stroma with scattered bile ductules blending into atrophic liver tissue.

Conclusion: This is a rare case of PMD associated with HMH confirmed by characteristic pathologic findings and molecular study of the dysplastic villous tissue showing disomy with androgenetic/biparental mosaicism.

Policy of full disclosure: /
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P-08 | Abstract No. 024 | Sameka, Rehab | Poster | Sabry, Lamia

Date | Hipayopatolony and Lymphatic System | Menoufia University, Menoufia Dept. of Pathology, Shebin Elkom, Egypt

ABSTRACT TITLE: Malakoplakia of gall bladder: A case report and review of literature

ABSTRACT TEXT

Objective: Malakoplakia (MP) is a rare granulomatous disorder that results from phagolysosomal defect, mostly involving urinary tract. Malakoplakia in gall bladder (GB) is extremely rare; comprehensive search revealed only 8 case reports. Malakoplakia clinically mimics other lesions like xanthogranulomatous cholecystitis and GB carcinoma. Therefore, recognition of MP in GB is important for surgeons and histopathologists, in order to set a proper plan for management and avoid unnecessary extensive surgery.

Methods: Case presentation: A 65 year-old non-diabetic female patient, presented with upper abdominal discomfort. Abdominal examination showed palpable non-tender mass in the right hypochondrium. Laboratory investigations were normal. Abdominal ultrasonography revealed GB stones and contracted GB with extensive wall thickening. Clinically, GB carcinoma was suspected. Open cholecystectomy was performed and GB specimen was referred to histopathological examination.

The patient’s postoperative period was non-eventful.

Review: This study presents a review about MP in GB regarding etiopathogenesis, presentation, histopathological detection and management plan.

Results: Grossly, GB specimen was measured 10x6x4 cm with firm greyish thickened wall. Dissection showed greenish velvety mucosa with ulceration. No masses were detected. Three blackish stones were also received. Hematoxylin and eosin (H&E) sections revealed thickened wall with subtotally denuded mucosal lining. The pathognomonic features of MP, Michaelis-Gutmann bodies; sheets of foam cells with macrophage with rounded, conically layered intracytoplasmic inclusions were detected.

Rokitansky-Aschoff sinus was also noted. There was no evidence of granuloma, polyp, dysplasia or malignancy.

The characteristic Michaelis-Gutmann bodies were stained positively for periodic acid-Schiff (PAS) stain. Immunostaining showed high expression of CD68 in histiocytes. Conclusion: Diagnosis of MP presenting as GB wall thickness is a diagnostic dilemma faced by surgeons, radiologists and pathologists.

The conclusion of this case report is to stress upon keeping MP in mind as a potential differential diagnosis for GB carcinoma and granulomatous cholecystitis.

Policy of full disclosure:

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SESSION No. | SESSION TITLE | AUTHOR | ABSTRACT TYPE | Co-Author(s)
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P-07 | Abstract No. 024 | Sracek, Ivo | Poster | Salman, Richard

Date | Head and neck pathology | Palacky University, Czech Republic

ABSTRACT TITLE: Comparison of lymphatic vessel density and expression of VEGF-C and VEGF-D in lymphangiogenic factors in Warthin’s tumours and oncocytic adenomas

ABSTRACT TEXT

Objective: To compare density of lymphatic vessels and expression of VEGF-C and VEGF-D in Warthin’s tumours (WTs) and oncocytic adenomas (OCAs).

Methods: Twenty three WTs and 13 OCAs of the parotid gland were analyzed. Lymphatic vessels were detected using D2-40 antibody. For evaluation of both the intratumoral and peritumoral lymphatic vessel density (ILVD and PLVD, respectively) area of highest vascularization (hot spots) was chosen, using a ≤5 field, and the number of vessels per square millimeter was counted in a ×200 field. The staining intensity for VEGF-C and VEGF-D immunoreaction in the tumour cells was graded from 0 to 3.

Results: The mean ILVD and PLVD values in WTs made 4,7 (range 1-6) and 6,9 (range 3-10), those in OCAs 1,0 (range 0-2) and 5,8 (range 2-6), respectively. The differences in the ILVD, but not in PLVD between these two tumours groups were very strong statistical relevance. In both entities, the PLVD markedly outnumbered the ILVD. The intratumoral vessels in the WTs were present exclusively in the lymphoid stroma.

In the group of 23 WTs, 13 (56,6%), 17 (73,5%) and 10 (43,4%) samples revealed positive VEGF-C, VEGF-D and both immunoreactions, respectively; 10 of 13 (77%) cases revealed VEGF-D immunoexpression and in none of them VEGF-C reaction was present. Conclusion: Both tested tumours reveal comparable high density of peritumoral lymphatic vessels and expression of VEGF-C and VEGF-D in the neoplastic epithelium. The patient’s postoperative period was non-eventful.

Policy of full disclosure:

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SESSION No. | SESSION TITLE | AUTHOR | ABSTRACT TYPE | Co-Author(s)
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P-19 | Abstract No. 024 | Wade, Reubina | Poster | Abbes, Innen, Doghri, Raoufna, Mra, Karima Driss, Maho

Date | Haematopathology | University of Witwatersrand Dept. of Anatomical Pathology, Johannesburg South Africa

ABSTRACT TITLE: Diffuse large b cell lymphoma of the endometrium: An unusual site for primary presentation

ABSTRACT TEXT

Objective: Diffuse large B-cell lymphomas are fairly common adult haematolymphoid malignancies. Approximately 40% of such tumours may present in an extranodal site. These lymphomas are however, infrequently identified in the female genital tract and even more rarely; are identified in the endometrium. The histopathological features and molecular findings of endometrial diffuse large B-cell lymphoma are discussed herein.

Methods: A 36 year old female presented with per vaginal bleeding. She underwent an endometrial curettage, which was submitted for histopathological evaluation.

Results: The endometrial curettage demonstrated morphological and immunohistochemical features of a diffuse large B-cell lymphoma. Amplification of the immunoglobulin heavy chain (IgH) gene by Polymerase Chain Reaction (PCR) confirmed B-cell clonality. Unfortunately, the patient did not return for her follow-up examination and was lost to follow-up.

Conclusion: Whilst diffuse large B-cell lymphoma is not a commonly identified tumour within the uterine cavity, it should be included in the differential diagnosis of endometrial neoplastic infiltrates so as not to misdiagnose this malignancy. This facilitates rapid commencement of further management for the patient.

Policy of full disclosure:

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SESSION No. | SESSION TITLE | AUTHOR | ABSTRACT TYPE | Co-Author(s)
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P-25 | Abstract No. 024 | Sassl, Asma | Poster | Boujebene, Nadia, Bonna, Mehdi Chahi, Lamia Abbes, Iman Dogni, Raoudha, Mra, Karima Driss, Maho

Date | Soft tissue pathology | Institute of Tunis Tunisia

ABSTRACT TITLE: Myxoinflammatory fibroblastic sarcoma: Diagnostic difficulties in biopsy specimens

ABSTRACT TEXT

Objective: Pathological diagnosis of sarcomas is a multistep process, beginning with morphology by a pattern-based approach, immunohistochemistry and molecular analysis. In biopsies, an accurate diagnosis can be difficult to make and misdiagnosed as infectious, inflammatory conditions and other neoplastic entities. We report an example illustrating diagnostic difficulties of sarcomas in biopsy specimens.

Methods: A 68-year-old male patient presented with a slowly growing lesion of the right leg. The patient reported a preceding trauma. This lesion measured 7.5 cm in maximum dimension and was infiltrative with ill-defined borders. MRI displayed contact with cortical bone of the tibia. A first cutaneous biopsy was performed and histologically consistent with an eosinophilic granuloma. The patient had specific treatment without improvement. The patient was then scheduled for a large excision of the lesion after a second diagnosis of a low-grade fibromyxoid sarcoma was made.

Results: Histologically, the tumor was lobulated with interspersed thickened vessels and virtually lacking and relatively rare in the neoplastic epithelium of the WT and OCA, respectively.

Conclusion: Both tested tumours reveal comparable high density of peritumoral lymphatic vessel density (iLVD and pLVD, respectively). However, WTs markedly differ from OCAs in the number of the intratumoral vessels. These are abundant solely in the stroma of WT, while practically lacking and relatively rare in the neoplastic epithelium of the WT and OCA, respectively.

Policy of full disclosure:
Objective: Colonic large-cell neuroendocrine carcinoma (LCNET) is a rare type of cancer that, has an aggressive behaviour and a dismal prognosis. LCNET has recently been introduced and has been described in different locations. The first study that introduced the term “large-cell neuroendocrine carcinoma” was by Bernick and colleagues. In his series, 0.6% of patients with colorectal cancer were affected by neuroendocrine carcinomas and 0.2% were large-cell neuroendocrine carcinomas.

Methods: A 59-year-old gentleman presented with a history of pelvic discomfort and bleeding per rectum. Perrectal examination confirmed a large obstructing tumor in the lower rectum. Imaging (CT chest abdomen/pelvis) confirmed a large rectal mass with multiple enlarged perirectal and mesorectal lymph nodes. Followed left colectomy which revealed a ulcerated and partially obstructing rectal mass located 6 cm from the anal verge.

Results: The rectal biopsy demonstrated a poorly differentiated malignant tumor with invasive ulceration. Immunohistochemistry revealed tumor cells were negative for cytokeratin, LCA and α1-positive but for CD56 and chromogranin, consistent with a diagnosis of large cell neuroendocrine carcinoma. A total of 24 local regional lymph nodes were resected of which 17 were found to be involved. Staging CT scan and bone scan excluded any metastatic spread beyond the pelvis. The patient was treated with a combination of chemotherapy and radiotherapy.

Conclusion: Colonic large-cell neuroendocrine carcinomas are rare and aggressive tumors. Most are located in the cecum or the rectum, are metastatic at presentation, and have a poor prognosis with median overall survival reported to be 10.4 months. While surgical resection is the primary treatment modality, the benefit of chemotherapy or radiation therapy, as used for conventional colorectal adenocarcinomas, has not been established for colonic LCNET. Thus, further studies are needed to determine the molecular genetics of these rare tumors and define the optimal systemic and local therapies.

Policy of full disclosure: /
Routine HE staining can be a means of diagnosing SPN, especially in the context of a differential diagnosis encompassing neuroendocrine tumors, thyroid papillary carcinoma, and follicular thyroid neoplasm with papillary-like nuclear features (NIFTP).

**Conclusion:** At our institution, introduction of NIFTP diagnosis has not caused an appreciable impact on surgical decisions or patient care. Further studies are needed to determine the long-term impact of this change in terminology on patient outcomes.

**Results:** The results are illustrated in the table 1. Conclusion: Results showed that...
### ABSTRACT TEXT

**Objective:** Previously known as “Blastic NK-cell leukemia/lymphoma” or “Agranular CD4+CD56+ hematodermic neoplasm/tumor”, blastic plasmacytoid dendritic cell neoplasm (BPDCN) is a rare, indolent but clinically aggressive hematologic malignancy derived from the precursors of plasmacytoid dendritic cells, it is currently included with the myeloid neoplasms in the 2017 WHO classification. BPDCN typically presents in the skin of elderly patients with a mean/median age of 61-67 years at diagnosis, with or without marrow involvement and systemic dissemination. Herein, we report a diagnostically challenging presentation of BPDCN in a young male who initially presented with generalized lymphadenopathy and pancytopenia.

**Methods:** A 23-year-old Hispanic male presented with easy bruising, pancytopenia and recent B symptoms along with a two-year history of a nontender brownish left anterior prebiatal mass. CT scan showed diffuse lymphadenopathy involving the inguinal, mesenteric, and axillary regions. A needle core biopsy of the left axillary lymph node was performed.

**Results:** Histologic examination revealed a diffuse monomorphic infiltrate of intermediate-sized to blastic cells with irregular nuclei contours, fine chromatin and scanty agranular cytoplasm, completely effacing the nodal architecture. The tumor cells were characteristically positive for CD45, CD4, CD56, TCL1, and vimentin, and positive for TdT and T and B cell receptors.

**Conclusions:** BPDCN is a rare, often diagnostically challenging entity, particularly when presenting at non-cutaneous sites and in unusual (young) patient populations. It is important to include BPDCN in the differential diagnosis of immunophenotypically aberrant hematologic tumors. Judicious use of appropriate immunophenotypic markers such as CD123, CD4, CD56, and TCL1 is critical to avoid missing the diagnosis of this aggressive condition. **Policy of full disclosure:** /
Objective: Basal cell carcinoma is a rare primitive prostatic neoplasm with a potential aggressive behavior.

Methods: We report the case of a 40 years old man who presented micturition disorders. Clinical examination found an enlarged and slightly indurated prostate. Serum PSA levels was normal. Pelvic sonography revealed an enlarged prostatic with important post void residual urine. Histopathological examination of transurethral resection specimen showed morphological features of an adenoid cystic carcinoma. Immunohistochemistry confirmed the diagnosis: basal cells expressed p63 while luminal cells were cytokeratin 7 positive. PSA and raceemase were negative. Extension work-up made by CT scan and MRI showed invasion of the prostatic capsule, pubis and, the right skeletal muscule. The patient received radiation therapy with poor response after 6 months of treatment.

Results: Basal cell carcinoma is a primary malignancy composed of prostatic basal cells. Clinical presentation and imaging are nonspecific. Serum PSA is normal or slightly increased. The diagnosis is often made transurethral prostatic resection. On histopathologic examination, this tumor can show either a predominant basaloid pattern an adenoid cystic like growth. By immunohistochemistry, tumor cells express cytokeratin 14 and 18, high-molecular-weight keratin while staining for PSA and AMACR are usually negative. Since hormonal therapy, chemotherapy and radiotherapy have little utility, treatment is usually ablative therapy. Basal cell carcinoma outcome is uncertain: recurrence, metastasis and death from disease can occur.

Conclusion: This case illustrates a prostatic tumor which is rarely encountered in practice and that can cause diagnostic problems and subsequently, inadequate treatment. Policy of full disclosure: /
Inflammatory pseudotumor of the spleen: A case report

ABSTRACT TITLE: Inflammatory pseudotumor of the spleen: A case report

Objective: Inflammatory pseudotumor (IPT) of the spleen is a rare tumor. We present a case of IPT of the spleen.

Methods: A patient was an 82-year-old man who underwent surgery for a rectal cancer in our hospital before six years. Abdominal CT revealed a mass in the spleen. The spleenectomy was performed.

Results: The macroscopic findings of these spleenectomy specimens showed a nodular and well-circumscribed mass with a whistel gray cut surface. The mass was 2.5x2.0x2.0cm. Microscopically, the mass showed a mixed inflammatory infiltrate with a proliferation of spindle cells focally in a storiform pattern. The spindle cells revealed positivity for CD68, vimentin, S100A in immunohistochemical study. The pathological diagnosis was IPT. The patient is followed-up for three months after the operation without any trouble.

Conclusion: IPT known as inflammatory myofibroblastic tumor is an uncommon lesion of uncertain origin. It occurs throughout the body, most frequently in the mesentry, omentum, gastrointestinal, pelvis and abdominal soft tissue. The splenic presentation is rare in the literature. In this study, we report an additional case of IPT involving the spleen.

Policy of full disclosure: /
Objective: To study a case of left inguinoscrotal swelling in a 68 years old male.

Methods: A retrospective monocentric study that included 50 patients diagnosed with HNSTS between 2000 and 2018 was carried out at Salah Azaiez Institute (Tunis, Tunisia). All data were collected from medical records.

Results: The median age at presentation was 47 years. The male to female ratio was 1.3. The most frequent location was the soft tissues of the neck (40%) and the mean tumor size was 4 cm. Lymph nodes metastasis was reported in 10% of cases. The most common subtype was rhabdomyosarcoma and most of the tumors were high grade 67%. As for therapeutic management, 74% of patients had lower body mass index (BMI) values (median BMI 28.3 kg/m2; p < 0.01). A lower proportion of Malay patients had ballooning degeneration compared to other ethnicities (p = 0.03). There was no statistically significant difference in advanced fibrosis among the ethnic groups. On multi-variate analysis, Chinese patients were more likely to have ballooning degeneration, compared to other ethnicities (OR 4.07, 95% CI: 1.02 – 16.2; p = 0.047), adjusting for age, gender, diabetes and BMI. Conclusion: Chinese patients were more likely to develop ballooning degeneration, compared to other ethnicities, independent of age, gender, diabetes and BMI. This translates to a higher proportion of Chinese patients with NASH.

Further studies investigating the biological, genetic and environmental factors contributing to ethnic differences in NAFLD could lead to further insights into NASH pathogenesis.

Policy of full disclosure: 

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**Lymphoepithelioma-like squamous cell carcinoma of the uterine cervix and concomitant cavernous haemangiomia - a case report**

**ABSTRACT TEXT**

Objective: Lymphoepithelioma-like carcinoma (LELC) is rare primary malignant tumor of the uterine cervix, and accounts for only 0.7% of all cases of primary carcinoma. HPV infection is often associated with the pathogenesis of the LELC, but convincing evidence for association with EBV is still lacking.

We present a case of LELC of the uterine cervix in a 53-years-old patient, gravida 2, parity 2, with hypertension, diabetes mellitus type 2, presenting with genital bleeding in menopause.

Methods: Colposcopy revealed tumor of the uterine cervix, curettage was performed and invasive squamous cell carcinoma of the uterine cervix, pT1b1, was diagnosed. Magnetic resonance imaging revealed a lesion with dimensions 6.6x9.8 mm in the uterine cervix, with locally enlarged lymph nodes. Radiography of the lungs, abdominal ultrasound and urography were done without any significant findings. Radical hysterectomy with bilateral adnexectomy was performed. Results: On gross section, white tumor mass in the left half of the cervix was seen, with latero-lateral dimension of 1.2 cm, endocervical length 1.5 cm, and deepest stromal invasion of 0.6 cm. On microscopic examination cancer cells were large, with ill-defined cell borders, abundant cytoplasm, prominent nucleoli, and focal syncytial growth pattern, surrounded by extensive lymphocytic infiltration, including interspersed intratumoral lymphocytes. Immunohistochemistry showed positivity of the tumour cells for EBV and HPV. Poorly differentiated non-keratinized squamous cell lymphoepithelioma-like carcinoma was diagnosed, without lymphovascular invasion and lymph node metastasis. There was an incidental finding of cavernous haemangiomia in the cervix. The patient was treated with radiotherapy (50Gy in 25 fractions), and was followed for 1 year after surgery, without evidence of recurrence.

Conclusion: LELC of the uterine cervix is rare tumor and further studies are needed to determine its association with HPV and EBV, including analysis of the role of concomitant infection in its pathogenesis.

Policy of full disclosure: 

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**Influence of ethnicity on histologic parameters in Asian patients with non-alcoholic fatty liver disease**

**ABSTRACT TEXT**

Objective: Most studies investigating ethnic differences on the prevalence and histology of non-alcoholic fatty liver disease (NAFLD) have been demonstrated in United States-based populations. This study aims to explore the effect of ethnicity on liver histological differences within a multi-ethnic Asian population with NAFFLD.

Methods: Adult NAFFLD patients from a single tertiary hospital in Singapore from 2009 to 2017 were selected, and their liver biopsies scored using the non-alcoholic steatohepatitis (NASH) Clinical Research Network scoring system.

Results: 132 patients with biopsy-proven NAFLFD were included, of which 54.5% were Chinese, 31.8% were Malays, 9.8% were Indians and 3.8% were from other ethnic groups. Chinese patients had the highest proportion of NASH (n = 61, 84.7%), defined as the presence of lobular inflammation and ballooning degeneration, compared to other ethnicities (p < 0.01). Chinese patients also showed higher degrees of steatosis, and Indian patients lower degrees of steatosis, compared to other ethnicities (p < 0.01), although Chinese patients had lower body mass index (BMI) values (median BMI 28.3 kg/m2; p < 0.01). A lower proportion of Malay patients had ballooning degeneration compared to other ethnicities (p = 0.03). There was no statistically significant difference in advanced fibrosis among the ethnic groups. On multi-variate analysis, Chinese patients were more likely to have ballooning degeneration, compared to other ethnicities, independent of age, gender, diabetes and BMI.

Conclusion: Chinese patients were more likely to develop ballooning degeneration, compared to other ethnicities, independent of age, gender, diabetes and BMI. This translates to a higher proportion of Chinese patients with NASH.

Further studies investigating the biological, genetic and environmental factors contributing to ethnic differences in NAFLD could lead to further insights into NASH pathogenesis.

Policy of full disclosure: 

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ABSTRACT TITLE: IgG4-related autoimmune pancreatitis, mimicking pancreatic tumor: A case report

ABSTRACT TEXT

Objective: This is a case report of a rare mimicker of pancreatic cancer

Methods: Whipple specimen grossly showed multiple yellowish nodules in the pancreatic head and tail and posterior stomach wall and splenic hilum, measuring 4x2.5 cm, 1x0.6 cm and 0.5x0.5 cm respectively. Representative sections from the pancreas, stomach and spleen were taken and examined under the microscope. IgG/IgG4 immunostains were performed in the sections that revealed the inflammatory infiltrate mainly plasma cells.

Results: Microscopically there is heavy mixed inflammatory infiltrate with increase number of plasma cells, multinucleated giant cells and fibrosis. No malignancy. The provisional diagnosis as autoimmune pancreatitis, possibly IgG4 related. Immunohistochemistry for IgG4 confirmed the diagnosis, detecting in >50% IgG4 positive cells.

Conclusion: IgG4 autoimmune pancreatitis is not uncommon disease and mimic carcinoma of the pancreas clinically. Careful assessment is needed to avoid Whipple resection

Policy of full disclosure: /
ABSTRACT TEXT

Objective: Insulin-like growth factor type 1 receptor (IGF-1R), a transmembrane tyrosine kinase receptor, may play critical role in proliferation, differentiation and transformation. It is expressed in many human tissues and overexpressed in many types of cancer. The objective of this study is to assess the association between immunohistochemical expression of IGF-1R and colorectal histopathologic features.

Methods: A total sample of 93 paraffin blocks of colorectal tissue were selected using consecutive sampling method in this cross sectional study. Samples grouped as poorly, moderately and well differentiated colorectal adenocarcinoma, colorectal adenoma and normal colorectal mucosa were stained by using IGF-1R monoclonal antibody.

Results: The expression of IGF-1R was positive in all groups, except in 4 samples (4.3%) of normal colorectal mucosa. Weak positive expression was found in normal colorectal mucosa (50%), colorectal adenoma (42.1%), well differentiated colorectal adenocarcinoma (23.5%) and moderately differentiated colorectal adenocarcinoma (5.3%). Strong positive IGF-1R expression was mostly found in poorly differentiated colorectal adenocarcinoma group (83.3%), followed by moderately differentiated colorectal adenocarcinoma (66.4%), well differentiated colorectal adenocarcinoma (35.3%), colorectal adenoma (47.4%) and normal colorectal mucosa (15%). There was association between immunohistochemical expression of IGF-1R and colorectal histopathologic features (p <0.001). There was significant difference in IGF-1R expression between normal colorectal mucosa and colorectal adenoma groups, as well as between normal colorectal mucosa and colorectal adenocarcinoma groups.

Conclusion: There was association between expression of insulin-like growth factor type 1 receptor (IGF-1R) and colorectal histopathologic features. IGF-1R might play a role in the progression of colorectal cancer.

Policy of full disclosure: /
Objective: To determine the burden of HIV in maternal deaths and to determine the causes of deaths in these women.

Methods: We conducted a retrospective analysis based on retrospective collection and analysis of autopsies performed during 2013 at Maputo Central Hospital.

Results: Within this study 143 cases of maternal deaths occurred at Maputo Central Hospital during the period of study, Representing 21.8% of 653 autopsies performed. The average age was 27 years with a standard deviation of 5.7 years. The youngest age was 16 years and the older was 58 years. Considering the occurrence of death relatively to delivery, most of the cases occurred in the puerperium over 6.4%.

According to the causes, the obstetric direct causes were responsible for 53.1% compared to non-obstetric.

Considering all causes of death the most frequent causes were diseases associated to HIV infection (n=32 cases (22.4%), followed by eclampsia (n=31 cases, 21.7%) and bleeding (n=29 cases; 20.3%). In those 32 HIV related patients the causes of death was: Tuberculosis (19), Kaposi Sarcoma (6), criptococosis (3), disseminated candid (2), and Pneumocystis/pneumocic pneumonia (1).

Conclusion: Maternal deaths corresponded to two out of ten autopsied deaths, with AIDS being the most frequent cause of death in this group, followed by eclampsia and pregnancy, delivery and puerperum hemorrhage. The leading causes of death for autopsied patients remain treatable diseases including infectious diseases. HIV/AIDS-related diseases were the leading cause of death alone. The most frequent causes of death in AIDS patients were tuberculosis, Kaposi’s sarcoma, and cryptococosis.

Policy of full disclosure: /
Objective: Thymidylate synthase (TS) and cyclin d1 expression by tumor grade in hereditary and sporadic breast cancer

Methods: A retrospective study included 98 cases of invasive breast cancer, classified as hereditary (37) by positive BRCA1/2 mutation testing in peripheral blood lymphocytes (TILs) and PD-L1 expression in gastric cancer. Immunohistochemistry was performed for CD3, CD4, CD8, Foxp3, and PD-L1 (22C3 PharmDx kit). PD-L1 expression was intergraded by combined positive score (CPS), tumor proportion score (TPS), and immune cells positive (IC+). Immunoscore was defined as high and low groups based on colorectal cancer (CRC) grading system.

Results: Patients with high CD3 and CD8 positive tumor infiltrating lymphocytes and PD-L1 expression were associated with higher grade and worse prognosis of breast cancer. Multivariate analysis confirmed significant prognostic value of TS, Cyclin D1, and Immunoscore (3 or 4) showed better OS by univariate and multivariate analysis (p<0.001, respectively).

Conclusion: Our results suggest that immunoscore based on spatial distribution of lymphocytes and PD-L1 expression may have notable influence on prognosis in stage II/III GC patients. Multivariate analysis using CD3, CD8, TS, Cyclin D1, and Immunoscore showed better OS by univariate and multivariate analysis (p<0.001, respectively). High Foxp3 + TIL density was associated with better OS. Immunohistochemistry was performed for CD3, CD4, CD8, Foxp3, and PD-L1 (22C3 PharmDx kit). PD-L1 expression was intergraded by combined positive score (CPS), tumor proportion score (TPS), and immune cells positive (IC+).

Policy of full disclosure: /
### Abstract Title:
Mucinous carcinoma of the breast, accidentally diagnosed in young female

### Abstract Text
Objective: Mucinous carcinoma (MC) also called as gelatinous carcinoma or colloid carcinoma, rare form of invasive breast carcinoma. The incidence is 0.5-3% and usually in older women. The characteristic is the tumor is made up of tumor cells that “float” in pools of extracellular mucin. Nodal metastases are rare (2%-4%), but it includes an important prognostic factor. It has a favorable prognosis due to the rare metastases.

Methods: Here, we report a case of MC of right breast in a 32-year-old female with fibroadenoma component. The patient has chief complaint that she has lump in the breast dextra as big as chicken egg for 2 years. There was no pain or discharge and occasionally painful.

Results: Here, we report a case of MC of right breast in a 32-year-old female. It is a rare form of invasive carcinoma, most of the mucinous carcinoma occur in older women, rarely in young women.

Conclusion: Here, we report a case of MC of right breast in a 32-year-old female with fibroadenoma component. The patient has chief complaint that she has lump in the breast dextra as big as chicken egg for 2 years. There was no pain or discharge and occasionally painful. Mucinous carcinoma is a rare form of invasive carcinoma. Most of the mucinous carcinoma occur in older women, rarely in young women.

Policy of full disclosure: IAP BURSARY APPLICATION

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### Abstract Title:
Clinicopathologic profile of triple negative breast cancer in a tertiary university hospital in manila: A 5-year review

### Abstract Text
Objective: To correlate the histologic subtype with the clinicopathologic data of triple negative breast carcinoma cases at the University of Santo Tomas Hospital (USTH) in Metro-Manila, Philippines.

Methods: Histopathology reports of invasive breast carcinoma with triple negative immunohistochemical profile were reviewed from January 2012 to June 2017. Using Chi-square test, the correlation of the histologic subtypes with patient’s age, laterality, tumor size, multifocality, presence of in-situ carcinoma component, presence of lymphovascular invasion and lymph node status were evaluated.

Results: 70 cases of triple negative breast cancer from female patients aged 20 to 76 years old (mean age of 52.71 ± 12.20) were included in the study. Invasive ductal carcinoma of no special type (NST) is the most common histologic type with a total of 43 patients (61%). This study shows significant correlation between age and laterality (p=0.039). 68% of patient aged below 50 years old have right-sided lesions while 58% of those aged 50 years old and above have left-sided lesions. Statistical analysis of the other clinicohistologic parameters showed no significant correlation.

Conclusion: In this study, statistical analysis of triple negative breast cancer showed correlation with age and laterality, irrespective of other variables parameters including histologic subtype, tumour size, multifocality, presence of in-situ carcinoma component, presence of lymphovascular invasion and lymph node status. Further documentation and assessment of these data may influence prognostication, treatment and follow-up monitoring.

Policy of full disclosure: /
Objective: To assess endometrial receptivity in women with unexplained infertility using endometrial leukemia inhibitory factor (LIF), endometrial thickness and sub-endometrial vascular flow resistant index.

Methods: This clinical controlled trial was conducted at Ain Shams University Maternity Hospital during the period from August 2014 to September 2017 on 170 patients divided into two equal groups: Group I (study group): women with unexplained infertility defined as inability to conceive inspite of regular marital life for at least 12 months. Group II (control group): matched women with infertility due to tubal factor, recruited from outpatient gynecology or infertility clinic at Ain Shams University Maternity Hospital. Histopathological examination: Conventional D&C biopsy and IHC for LIF was done and scored. Sonographic examination was performed to assess endometrial thickness and sub-endometrial color Doppler resistance index.

Results: LIF staining intensity score was significantly lower in the unexplained infertility group compared to the tubal factor group. A cutoff value for LIF staining score of >0.5 predicted unexplained infertility with a sensitivity of 72.33% and specificity of 70.67%; whereas a cutoff of > 0.71 for subendometrial blood flow RI predicted unexplained infertility with a sensitivity of 70.67% and specificity of 86.67%. A cutoff of ≤20 for endometrial thickness had the highest sensitivity of 100%, but lacked specificity (only 16%).

Conclusion: LIF may be a predictor for unreceptive endometrium in cases of unexplained infertility. Moreover, subendometrial blood flow RI and endometrial thickness were significantly lower in the unexplained infertility group than the tubal factor group. LIF, subendometrial blood flow RI and endometrial thickness may be used in the prediction of endometrial factor status in cases of unexplained infertility. (Abstract for IAP Bursary Application) Policy of full disclosure: /

Objective: The median age was 50 years (range, 23-80 years). Estrogen receptor (ER) and progestrone receptor (PR) were measured in 142 (71%) patients respectively. The median Ki67 was 23% (range, 4-80%). A high Ki67 value (>14%) was found in 72.13% (132/183) of the cases. Tumor grade was correlated inversely with ER or PR expression. High Ki67 and low tumor grade significantly predicted Her-2/Neu 2+ amplification. Policy of full disclosure: /
**ABSTRACT TITLE:** Analysis of DNA ploidy and Ki67 expression on Barrett's crypts on the progression to oesophageal adenocarcinoma

**ABSTRACT TEXT**

Objective: In non-dysplastic Barrett's esophagus Ki-67 stains cells in the lower part of crypt while the upper and crypt are negative. In low-grade dysplasia (LGD), Ki-67 positivity is confined to the upper crypt with occasional surface cell reactivity. In high-grade dysplasia, there is strong staining in the luminal surface. Chromosome instability, which induces abnormal amounts of DNA, promotes tumour progression. This study aims to analyse changes in cellular DNA content and differences in proliferation in different compartments of Barrett’s crypts to investigate cellular organisation in the upper GI cancer sequence.

Methods: Ki-67 expression within Barrett's crypts was assessed on NBDE 11, LGD 15, and HGD 14. The Barrett’s crypts were divided into: crypt base (bottom third), middle region, and the surface (upper third), respectively. Altered scoring system, one-way ANOVA with Bonferroni post-hoc analysis was used for statistical significance. DNA ploidy was carried out using image cytometric analysis.

Results: One-way ANOVA showed significant difference across the three groups (p < 0.0001). Bonferroni post-hoc analysis showed a significant difference in the surface architecture between NBDE and HGD (p < 0.0001) and LGD and HGD (p < 0.001). For the middle region, although there was no statistical significance between the groups, NBDE and LGD and LGD and HGD showed statistical trends (p > 0.079 and p < 0.096). For the basal compartment, there was a significant difference between NBDE and LGD (p = 0.035). Ploidy data showed an increase in aneuploidy in HGD with average DNA index scores of 1.45.

Conclusion: This study showed an increase of DNA content in HGD and significant difference in the Ki-67 expression between NBDE, LGD and HGD in the basal and surface regions. Middle compartments showed trends but additional NBDE, LGD and HGD groups need to be analysed to increase the statistical power.

**Policy of full disclosure:**

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**ABSTRACT TITLE:** C: HER expression of estrogen receptor, progesterone receptor & her 2 receptor in 150 cases of breast cancer

**ABSTRACT TEXT**

Objective: The aim of this study was to investigate the estrogen receptor (ER), progesterone receptor (PR) and HER2 receptor status in Sudanese females with breast cancer.

Methods: This was a cross-sectional study involving 150 female patients of breast cancer received at the National Health Laboratory Khartoum, Sudan during January-March 2018. Sections of formalin fixed paraffin embedded tissue blocks were stained using monoclonal antibodies against ER, PR and HER2 by Ventana XT Benchmark instruments. All samples examined by two pathologists.

Results: Patients’ age ranged from 21 to 80 years, 104 (69.3%) were ER positive, 78 (52%) were PR positive, and 126 (84%) were HER2 negative. 17 (11.3%) patients had HER2 positive and 7 patients (4.3%) were equivocal.

Conclusion: Most Sudanese breast cancer cases express ER (69%), PR (52%) and Her2 (11.3%) similar to other studies. HER2 testing is essential for breast cancer management and is better to be confirmed with FISH.

**Policy of full disclosure:**

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**ABSTRACT TITLE:** Pregnancy Luteoma: A report of two cases and Literature Review

**ABSTRACT TEXT**

Objective: Description of clinical-pathological findings of two cases of luteoma of pregnancy and review of literature.

Methods: We report two cases of pregnancy luteoma which were incidentally found during caesarean section and were suspicious of malignancy. Cases were obtained retrospectively from the archives in the Department of Pathology at Muhimbili National Hospital, Dar es Salaam, Tanzania. Demographic and clinical information were recorded.

Results: Two cases were reported. First case was a 31-years female, Gravid 1, with a 37-week singleton pregnancy complicated by an incidental mass found on the left ovary. Oophorectomy was performed. Histology showed well-circumscribed lesion composed of sheets of large polygonal cells with abundant eosinophilic cytoplasm, some with vacuoles, variably prominent nucleoli, and a few mitotic figures were present. Folicles with colloid materials were seen. A second case was a 37-years old female, Gravid 4, with a complicated pregnancy complicated by an incidental mass on the right ovary. Oophorectomy was performed. Histology showed an ovary with shrunken circumscribed lesion containing large polygonal cells abundant eosinophilic cytoplasm with vacuolation in some cells, round nuclei, variably prominent nucleoli. Few areas showed folicles. The findings in both cases were consistent with luteoma of pregnancy.

Conclusion: Luteoma of pregnancy should be considered as differentials among ovarian masses found during pregnancy. It is a hyperplastic condition and regresses after delivery. Wedge biopsy or frozen sections should be considered in such cases to avoid unnecessary Oophorectomy.

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**ABSTRACT TITLE:** Significant correlation between E2F and Ki67 p53 and Survivin: snapshot of the dynamics between cell cycle and apoptosis along the Barrett metaplasia-dysplasia-adenocarcinoma sequence

**ABSTRACT TEXT**

Objective: It has been postulated that the apoptotic process leads to the development of neoplastic clones with prolonged cell life. Survivin, an inhibitor of apoptosis, is integral to this process. E2F, a transcription factor protein, is involved in the cell cycle regulation through its interaction with retinoblastoma (Rb) and E2F transcription factor regulator. Cell cycle regulation involves many molecules that affect E2F phosphorylation, such as Ki67, TP53, TGF-β and growth factors such as EGF and PDGF.

The aim of this study is to analyse using immunohistochemistry (IHC), the interplay between apoptosis and cell cycle in the oesophageal adenocarcinoma pathway.

Methods: Samples from 77 patients (squamous n=12, non-dysplastic Barrett’s n=16, low-grade dysplasia (LGD) n=13, high-grade dysplasia (HGD) n=23 and invasive adenocarcinoma n=13) were immunostained for Survivin, p53, Ki67 and E2F expression. IHC analysis was performed using one-way ANOVA with Bonferroni post-hoc analysis to examine the linear trend between the various groups in the upper GI sequence.

Results: Survivin expression shows up-regulation in the progression to OA. One-way ANOVA with Bonferroni post-hoc analysis confirmed expression with incremental pathological grades followed a linear relationship (R²=0.001; P=0.13). The results show a significant correlation between E2F and Ki67, p53 and Survivin (p=0.01), but that p53 is not significantly correlated to Survivin (p=0.113) and marginally significant to Ki67 (p=0.033).

In addition, the results show that E2F has the lowest mean expression across the Barrett metaplasia-dysplasia-adenocarcinoma sequence.

Conclusion: This study shows that E2F expression differs significantly from Ki67, p53 and Survivin along the anterior Barrett metaplasia-dysplasia-adenocarcinoma sequence. These results provide a phenotypic snapshot of the dynamics between the cell cycle, as shown by p53, E2F and Ki67 and apoptosis as shown by Survivin. Policy of full disclosure:
ABSTRACT TITLE: A case report of a Mullerian adenosarcoma of the uterus with sarcomatous overgrowth and concurrent ovarian high-grade serous adenocarcinoma.

ABSTRACT TEXT: Objective: Mullerian adenosarcomas (MA) are rare malignancies. They usually arise in the uterus (5% of uterine sarcomas), but they may also occur in extrauterine locations. They are biphasic tumors, with benign or atypical epithelial component and low-grade malignant stromal component. Mullerian adenosarcoma with sarcomatous overgrowth (MASON) represents 10% of uterine MAs and is characterized by the presence of a high-grade pure sarcomatous component, occupying at least 25% of the tumor volume. High-grade serous carcinoma of the ovary is a very common neoplasm, with a characteristic morphology and immunophenotype.

Methods: We present a case of a postmenopausal woman, aged 65 years old, with abnormal vaginal bleeding. Imaging studies were suggesting of uterine tumor with a coexisting lobulated mass of the right adnexa. Endometrial curettage was performed and a diagnosis of endometroid/malignant sarcomatous carcinosarcoma was given. The patient underwent hysterectomy with bilateral salpingo-oophorectomy. She was further subjected to omentectomy.

Results: Grossly, the endometrial cavity was occupied by a large, polypoid mass, arising from the uterine corpus, measuring 10x9,2x2 cm. Sections of both the ovaries and the omentum revealed multiple, scattered whitish areas. Microscopic examination of the polyoid mass revealed a biphasic tumor with a leaflike appearance, composed mostly of benign glands scattered throughout a malignant sarcomatous component. The epithelial component focally (1%) exhibited considerable cytological atypia. High grade pure sarcomatous overgrowth (SMA+, desmin+, p53+, ER, CD10: focally+, Ki-67: 80%) involved about 90% of the tumor volume. There was >1/2 myometrial invasion. The whitish areas of both ovaries corresponded histologically to high-grade carcinoma (p Ker+, p53+, ER+, WT1 focaly+, PR focaly+, Ker20, vimentin-), with infiltration of the right mesosalpinx and omental spreading. The tumours were clearly demarcated and separate from each other.

Conclusion: A diagnosis of uterine MASON, with concurrent high-grade serous carcinoma of the ovaries was established. This is an extremely rare phenomenon, as we did not find a similar case reported in the literature.

Policy of full disclosure: /
Objective: Surgical management of patients with uterine tumors is often based on the histological findings of pre-surgical tissue samples. Uterine carcinosarcomas are aggressive tumors which require extensive surgical staging, including hysterectomy, lymphadenectomy, omentectomy and peritoneal biopsies. We aimed to assess whether histological features from pre-surgical uterine samples correlate with those of surgical resection specimens in patients diagnosed with endometrial carcinosarcoma.

Methods: Retrospective selection of consecutive carcinosarcomas diagnosed in surgical specimens (n=70), in two tertiary centers (2000-2016) and comparison of the morphological features between pre-surgical uterine tissue samples and surgical resection specimens. Statistical analysis was performed to evaluate concordance rate and its association with pathological parameters.

Results: Pre-surgical uterine samples encompassed 28 biopsies and 42 curettings. Surgical resection specimens had tumors without carcinomas that had tumors with a median size of 8cm (2.5-17.5cm). Their epithelial component ranged from 1% to 95%. The most frequently encountered, various ER and PR expression and Ki67 index. Discordant cases included pre-operative histological assessment limited to the epithelial (n=16) or mesenchymal (n=9) components or the presence of extrinsic necrotic tissue in the presurgical sample (n=2). Discordance was not correlated to the type of sampling (p=0.109), tumor size (p=0.805), presence of heterologous elements (p=0.228), or FIGO stage (I vs. IIIV, p=0.099). The pre-surgical diagnosis significantly correlated with the relative amount of epithelial and mesenchymal components in surgical resection specimens (p=0.002).

Conclusion: Agreement between initial and final histological findings is moderate. Discordance in tumor components was the only pathologic feature that influenced pre-surgical samples' diagnostic accuracy of carcinosarcoma.

Policy of full disclosure: /
Abstract No. 043

**SESSION:** P-77

**ABSTRACT TITLE:** Metastatic tumors to the colon and rectum

**ABSTRACT TEXT:**

Objective: The colon and the rectum are uncommon sites of metastatic disease. The aim of this study was to evaluate the clinicopathological features of secondary colorectal malignancies and the site distribution of the primary neoplasms.

Methods: We retrospectively reviewed patients diagnosed with metastasis to the colon/rectum over a period of 17 years between 2001 and 2018 in our department.

Results: Our study included 23 patients. There were 18 female patients and 5 male patients. The median age was 58 years old (range, 32 – 87 years old). Carcinomas were the most common histological type (n=20; 87%) of which squamous cell carcinoma was the most frequent (17%). Diffuse large B cell lymphoma was diagnosed in one patient. Carcinosarcoma was reported in one female patient and fibrosarcoma arising from dermatofibrosarcoma protuberans in one male patient. Loco-regional extension of the colon/rectum was noticed in 70% (n=16) of cases and lymphatic or hematogenous dissemination was reported in the remaining cases. The ovary was the most common primary site (22%), followed by endometrium (17%) and breast (13%). The primary site was unknown in 9% (n=2) of cases.

Conclusion: This lesion is still confused with metastatic carcinomas by both surgeons and pathologists during frozen sections performed in patients with colorectal malignancies. Histology, immunohistochemistry, and clinical information have to be considered. Patients usually present with a late stage of disease and a poor prognosis. The role of the pathologist in determining the primary or metastatic origin of the tumor is important. Morphology as well as immunohistochemical study using antibodies such as: CK7, CK20, CDX2 ... can be of great diagnostic help.

Policy of full disclosure: /
Abstract Title: Secondary ovarian malignancies

Abstract Text: Objective: The diagnosis of the metastatic origin of an ovarian tumor can be difficult to make as it commonly mimics a primary ovarian malignancy. The aim of this study was to evaluate the clinicopathological features of secondary ovarian malignancies and the site distribution of the primary neoplasms.

Methods: We analyzed 84 cases of ovarian metastases over a period of 18 years between 2000 and 2018 in our department.

Results: The median age was 48 years old (17–77). Carcinomas were the most common histological type (92%) followed by neuroendocrine tumors (5%). Diffuse large B cell lymphoma was diagnosed in one patient and gastrointestinal stromal tumour (GIST) in one patient. Of carcinomas, 49% were signet ring cell carcinomas, 21% were invasive carcinoma of no special type and 19% were mucinous adenocarcinoma. The gastro-intestinal tract was the most common primary site (65%), followed by breast (17%) and the pancreatobiliary system (5%). The other primary sites found are the kidney and the lung. Bilateral ovarian involvement was present in 78% of the patients, including all patients with tumors of the stomach (Krukenberg tumors). All patients aged under 35 years old presented with ovarian metastases of gastrointestinal neoplasms of which the stomach was the most common primary (56%).

Conclusion: In case of an ovarian malignancy, metastatic disease should always be considered especially if metastases precede the detection of the primary tumor in 38% of cases. Preoperative distinction between primary and metastatic ovarian neoplasms is very important in order to manage the appropriate treatment. Gross and histological findings that favors a metastatic tumor include bilateralarity, surface implants, a nodular and infiltrative pattern, single cell invasion, signet ring cells and vascular invasion. PAX8 may be helpful particularly to rule out gastrointestinal ovarian metastasis.

Policy of full disclosure:
Objective: The endometrium is subjective to effect of cyclical hormonal changes and disruptions in these hormones predispose the endometrium to various pathologies. Endometrium is one of the commonest biopsies seen in our Department. The aim of this study is to analyse the clinical demography and histological diagnoses of endometrial biopsies received in our department between 2008 and 2017.

Methods: We abstracted the clinical details and histological diagnoses of all endometrial biopsies received at our department within 10 years study period. The slides for the cases were retrieved and reviewed. The results obtained were analysed using SPSS 21.

Results: We analysed 1132 endometrial biopsies. The age range was 17 to 96 years with a mean of 43.11 (SD 13.77). Most of the cases clustered around 3rd to 6th decade with dwindling frequencies at the extreme of ages. Highest age group was 40-49 years with 329 cases (29.06%). The histological diagnoses were benign tumours in 397 cases (35.35%), malignant in 95 cases (8.39%), inflammatory in 30 cases (2.65%), non-neoplastic in 346 cases (30.57%) and normal in 264 cases (23.32%). The benign neoplasms included leiomyoma (17.33%), endometrial polyps (33.02%) and endometrial hyperplasia (27.4%). The endometrial hyperplasias were simple (85%), complex (8%) and complex with atypia (7%). The gestational trophoblastic disease seen were complete mole (34 cases), partial mole (23 cases), invasive mole (1 case) and choriocarcinoma (7 cases). The commonest malignant lesion was adenocarcinoma seen in 59 cases (13.8%). Endometrial stroma sarcoma, neuroendocrine carcinoma, adenocarcinoma squamous carcinoma and metastatic carcinoma were seen in variable percentages. The malignant tumours have predilection for the older age group above 60 years while the benign lesions were spread through the various age groups.

Conclusion: Our data represent a widespread of endometrial pathologies. Endometrial hyperplasia and gestational trophoblastic disease were relatively common in our study.

ABSTRACT TITLE: Analysis of endometrial biopsies in a tertiary hospital in Ghana

ABSTRACT TEXT: The objective of this study was to determine clinical and histological findings of female genital tuberculosis. Methods: We performed a retrospective study of female patients diagnosed with genital tuberculosis in the department of pathology of Salah Azaiez Institute over a period of 20 years (1996-2015).

Results: Our study included 18 women aged between 36 and 60 years old (mean age = 52). No post medical history was reported. Surgical specimens included hysterectomy with bilateral salpingo-oophorectomy in 7 cases, inter-adnexal hysterectomy in 4 cases, endometrial curettage in 3 cases, adnexectomy in 3 cases and a cervical conisation in one case. Gestational tuberculosis involved the endometrium (n=11), the fallopian tube (n=9), the ovary (n=3) and the cervix (n=1). Multifocal genital tuberculosis was found in 6 cases. The final diagnosis was histologically made and revealed in all cases tuberculosis granuloma with epithelioid and Langhans giant cells. Caseous necrosis was absent in 8 cases of which 5 were located in the endometrium. Conclusion: In the genital location, tuberculosis is a challenging diagnosis because of nonspecific symptoms, which may lead to therapeutic delay and incarescence of the disease. Endometrial tuberculosis should be kept in mind for any atypical or latent gynecological functional symptomatology. Though the fallopian tube is the most common site of genital tuberculosis in literature, the endometrium was the most frequent location in our series.

Policy of full disclosure: /
Objective: Ovarian tumours both benign and malignant are relatively common worldwide. Specimens from the ovaries are commonly received in our department for histological appraisal. This study reviewed retrospectively the clinical data and the diagnoses made over a ten year period.

Methods: All reports of ovarian cases were retrieved from the department record and clinical demographics and histological diagnoses were abstracted. Archival slides were reviewed and retrieved. When slides were not found blocks were sectioned for review and data obtained were analysed using SPSS 21.

Results: Our Department received 492 ovarian biopsies during the study period. The age range was 2 to 96 years with a mean of 31.62 (SD 13.61). Most of the cases were seen in the 3rd and 4th decade with frequency of 33.7 and 27.85% respectively. 14 cases (2.85%) were childhood tumours while 25 cases (5.08%) occurred after 50 years. Bilateral lesions were 18% while lesions in right and left ovaries were 43% and 39% respectively. The final diagnoses were benign in 215 cases (43.7%), borderline and malignant in 98 cases (19.9%) and non-neoplastic in 179 cases (36.3%).

Conclusion: Considering the incidence rates, ovarian cysts, endometriosis, ovarian gestation, polycystic ovarian syndrome, tuberculosis, abscesses and schistosomiasis were seen in the non-neoplastic category.

Policy of full disclosure: /
**ABSTRACT TITLE:** An uncommon case of uterine lipoleiomyoma

**ABSTRACT TEXT**

Objective: Lipoleiomyomas are very rare uterine tumours and are considered to be a variant of uterine myomas. Lipoleiomyoma consists of variable proportion of mature lipocytes and smooth muscle cells. The pathogenesis of lipoleiomyoma remains unknown however several hypotheses exist. The most widely accepted theory is fatty metamorphosis of smooth muscle cells into adipose tissue.

Methods: A 58 year old postmenopausal woman presented with a 5 month history of abdominal fullness and vaginal bleeding since 20 days. Her transvaginal ultrasound (US) showed the presence of a well circumscribed hypechoic solid mass within the lumen of the uterus measuring 5cm. in greatest diameter. Also there were six intramural and subserosal nodules from 0.5cm to 1.7cm, in diameter. The patient underwent hysterectomy with bilateral salpingo-oophorectomy.

Results: Histological examination of the mass showed a mixture of bland spindle shaped smooth muscle cells without nuclear atypia with a significant amount of mature adipocytes. Based on the above finding the tumour was diagnosed as a benign lipoleiomyoma. Sections from the other nodules showed histomorphology of conventional uterine leiomyomata.

Conclusion: Lipoleiomyoma is an unusual fatty tumour. Lipoleiomyomas are mostly seen in advanced age and showed a favorable outcome. If asymptomatic lipoleiomyomas require no treatment.

Policy of full disclosure:

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**ABSTRACT TITLE:** Luteoma of pregnancy: A rare case report

**ABSTRACT TEXT**

Objective: Pregnancy luteoma is a benign rare tumor that occurs in the ovaries due to hormone effects during pregnancy. It presents a diagnostic and management challenge in the way that it can simulate a malignant ovarian tumor. Less than 200 documented cases have been reported until today worldwide.

Methods: A 29 years old woman presented at 20 weeks of gestation with a 11cm mass on her left ovary. This was found by a routine ultrasound check and was surgically removed. Macroscopic examination showed an enlarged ovary measuring 11x6x4.5 cm. Cut surface of the ovary was circumscribed, soft, fleshy, and gray-brown.

Results: Histologically, sections from left ovarian mass revealed a lesion composed of polygonal luteinized cells with abundant eosinophilic granular cytoplasm and prominent nucleoli. No mitotic figures or atypia were found. Tumor cells were positive in Vimentin and Inhibin. Reinke crystals were not found in the sections studied; therefore, Leydig cell tumor and steroid cell tumor were ruled out. Based on the clinical and histopathological findings, the diagnosis of pregnancy luteoma was set.

Conclusion: Sternberg in 1963 and others described a group of tumors classified as “luteomas of pregnancy.” These tumors occur in the last trimester of pregnancy and are invariably discovered during cesarean section. Grossly, they are usually brown, soft, and bulbous, with the configuration of a corpus luteum. They are frequently multinodular and bilateral, may be functional, and are evanescent. Predisposing factors are polycystic ovarian syndrome due to high levels of hormones, multiple pregnancies and advanced age. The differential diagnosis for pregnancy luteomas includes granulosa cell tumors, thecomas, Sertoli-Leydig cell tumors, pure Leydig (hilar) cell tumors and stromal hyperthecosis.

Policy of full disclosure:

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**ABSTRACT TITLE:** Leiomyo adenomatoid tumor: A rare variant of uterine adenomatoid tumor

**ABSTRACT TEXT**

Objective: Adenomatoid tumor (AT) occurs in the testicular spermatic cord of men and in the fallopian tube and uterus of females. These tumors are usually incidental findings in females, whose uterus are removed for various other indications. Leiomyo-adenomatoid tumor (LMAT) is a variant of adenomatoid tumor, in which the smooth muscle component is predominant.

Methods: A 40 year-old woman presented to the gynecology outpatient department of our hospital with complaints of painful vaginal bleeding during the last 10 months. Clinical examination revealed multiple tumors in the uterus leading to hysterectiony and salpingo-oophorectomy. Grossly the uterus measured 10x8x5 cm. During dissection multiple submucosal, intramural and subserosal tumors were found. The uterine wall measured 4cm-8cm. Three intraserosal tumors had polycystic appearance with gelatinous content and grey fibrous areas.

Results: Microscopic examination revealed multiple uterine leiomyas. Few sections from the subserosal location revealed leiomya with extensive clustering of small cystic spaces, as well as sheets of cells located in the stroma with vaculicated cytoplasm separating the smooth muscle bundles. These spaces were lined by either flattened or cuboidal epithelium. Immunohistochemical analysis showed positivity at Calretinin and Vimentin of these epithelial cells. The smooth muscle fibers were identified by strong SMA positivity. The above findings set the diagnosis of LMAT. No tumour recurrence had appeared so far in a 1 year patient’s follow up.

Conclusion: In 1992, Epstein described a variant of adenomatoid tumor with prominent smooth muscle component and introducing the term “LMAT”. The presence of adenomatoid component intermixed with smooth muscle proliferation favors the hypothesis that LMAT should be considered as a variant of AT that originated in precursor cells with dual differentiation; mesothelial and muscle cells, rather than a collision tumor.

Policy of full disclosure:

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**ABSTRACT TITLE:** The frequency of Epstein-Barr virus and high-risk human papillomaviruses co-infection in cervical carcinoma samples of Syrian women

**ABSTRACT TEXT**

Objective: Cervical carcinoma is caused by high-risk human papillomaviruses (HPV). Likewise, Epstein-Barr virus (EBV) has been recently shown to be present with high-risk HPVs in a substantial proportion of cervical carcinoma patients. We recently provided evidence on HPV infection in 95% of cervical carcinoma samples from Syrian women. In the present study, we further explored the status of EBV in Syrian patients with cervical carcinomas.

Methods: Forty-four samples of cervical carcinoma from Syrian women were explored using tissue microarray for EBV and HPV expression using immunohistochemistry and polymerase chain reaction analysis.

Results: We found that EBV and high-risk HPVs are co-present in 15 out of 44 of the samples (34%). We also noted that the co-expression of LMP1 and E6 genes of EBV and high-risk HPVs, respectively, are associated with more aggressive squamous cell carcinoma phenotype.

Conclusion: Our results indicate that EBV and HPVs are co-present in 1/3 of cervical carcinoma samples from Syrian women. The EBV/HPV co-presence is associated with more aggressive cancer phenotype. Future studies are needed to elucidate the exact role of EBV and HPVs cooperation in cervical carcinogenesis.

Policy of full disclosure:
Objective: We report a complication of Tension-free vaginal tape (TFT) use for posterior vaginal wall prolapse, so that histopathologists are aware of the need for thorough examination and documentation when examined such a specimen. Methods: A 64-year-old woman underwent posterior vaginal wall prolapse repair with mesh and sacrospinous fixation in 2009. Following which, the patient became clinically symptomatic with vaginal and anal pain and dyspareunia. The magnetic resonance imaging revealed that the mesh was supplemented in the posterior vaginal wall close to the rectum. This was partially removed under emergency colorectal operation in 2015. A year later, she suffered intermittent episodes of systemic sepsis. The 3D ultrasound scan showed that there was mesh between the lower posterior vaginal wall and the rectum. This resulted in a rectovaginal fistula. She required an ultra-low anterior resection to excise the rectovaginal mesh and fistula. Gross examination of the specimen revealed the mesh in situ. Following histological examination, the microscopic erosion of the mesh into the intestinal mucosa was confirmed. Recto-vaginal fistula was not obvious on examination of the specimen. Results: Complications of Tension-free vaginal mesh have been associated with medical legal issues and national enquiries about safety. We have described here a rare but serious complication of bowel injury following the use of TVT sling procedure, and feel it is important for the pathologist to be aware of the vaginal-mesh-related complications so that appropriate examination and documentation can occur. Conclusion: This is a case report on a rare but serious complications of bowel injury following the use of Tension-free vaginal mesh. Policy of full disclosure: /
Fibrous hamartoma of infancy: A report of five cases

Objective: Fibrous hamartoma of infancy (FHI), also known as ‘subdermal fibromatous tumor of infancy’, is a rare fibrous proliferation occurring typically in infants and young children with male predominance. In 20% of cases, FHI are detected at birth presents as a congenital lesion. Commonly, the axillary soft tissue or the proximal parts of the upper extremities are involved. We report five cases of FHI and we study epidemiological and clinicopathological features.

Methods: This is a retrospective study about 5 cases of FHI diagnosed in our department of Pathology in the university Hospital of Monastir from 2008 to 2018.

Results: Our study was composed of 3 females and 2 males with an average age of 18.8 months. All lesions were subcutaneous. It was located in the forearm in two cases, in the scalp in two cases and in the inguinal region in one case. All patients had a surgical resection of tumor in pediatric surgery department. Grossly, the tumor size was ranged from 1 to 9 cm. At the cut, it was whitish to grayish in color with a capsule. Histologically, the diagnosis was based on histological examination. In fact, all lesions showed a characteristic triphasic morphology with an admixture of fascicles of fibroblastic and myofibroblastic cells, mature adipose tissue, and vascular myxoid nests of primitive mesenchyme. No nuclear atypia or mitosis was detected. In one case, there are numerous mast cells in the interstitial tissues.

During six-month follow-up, no local recurrence was observed. Conclusion: FHI is a pediatric benign soft tissue tumor, characterized histologically by an organoid mixture of three components. This study demonstrates that FHI can occur in children older than 2 years and in unusual anatomic sites including the scalp, the inguinal region. Policy of full disclosure: /
Oral Presentation Abstracts
Objective: Tufting enteropathy (TE) also known as intestinal epithelial dysplasia, is an autosomal recessive, congenital enteropathy presenting with a neonatal-onset severe intractable diarrhea. As a result, the patients develop failure to thrive, become dependent on total parenteral nutrition and eventually require transplantation for treatment. The pathology is related to mutations in the epithelial cellular adhesion molecule (EPCAM) gene, resulting in a dysfunctional epithelial cell barrier. We present a case of tufting enteropathy in an Omani child as it is a rare disease but important to be recognized.

Methods: Three months old child, a product of a consanguineous marriage, was brought to us with the chief complaint of failure to thrive. An oesophagogastroduodenoscopy and colonoscopy revealed normal gross appearance of the upper and lower gastrointestinal system. Biopsy was taken from the duodenal bulb, duodenum and rectum. Results: The duodenal biopsy showed features of tufting enteropathy in the first few months of life may show normal findings and the characteristic histological features might also be difficult to be found at an early stage. Therefore, in the absence of obvious pathological findings in a patient with a strong clinical suspicion of TE, immunohistochemical staining for EPCAM should be performed. Policy of full disclosure: /
Objective: HER2, also known as proto-oncogene Neu or ERBB2, is a protein encoded by the erythroblastic oncogene B (ERBB2) gene. Targeting HER2/ERBB2 protein overexpression in breast cancer has been shown to be an effective therapeutic modality. The status of Her2/ERBB2 is routinely evaluated using the Oncomine Comprehensive Assay also intended to gauge applicability of cytomorphological features of papillary thyroid carcinoma in liquid based cytology (LBC). A co-familiarization phase was planned to help in the understanding of Liquid based cytology of fine needle aspiration (FNA) of thyroid carcinoma (PTC) as seen in CSC to LBC. A few cases intended to be used for this Cytomorphology of papillary thyroid carcinoma in liquid based cytology: How different is it from conventional smear cytology?

ABSTRACT TEXT

Objective: Liquid-based cytology (LBC) of fine needle aspiration (FNA) of thyroid has been used in parallel with conventional smear cytology (CSC) for over a year at Singapore General Hospital (SGH). This first familiarization phase was intended to gauge applicability of cytomorphological features of papillary thyroid carcinoma (PTC) as seen in CSC to LBC. A consensus emerged suggesting both the use of LBC looked rather different and the need for an LBC-derived PTC cytomorphology. The second phase aims at analyzing LBC-derived cytomorphological features of PTC.

Methods: The CB cytomorphology of 10 consecutive cases of FNAC of thyroid with histologically proven PTC were analysed. The shape and size of cell groups was classified as large sheets, medium sized groups, and dissociated small groups and dispersed single tumour cells. The 40X microscopic cell appearance was described as small, intermediate or large cell type. Matching cell types were searched for in respective histology sections.

Results: Intermediate cell type showed perversive nuclear features of PTC that matched conventional PTC histology. Large cell type showed short or tall columnar shape, granular cytoplasm and smooth or irregular nuclear masquerading as Hurthle cell. It matched tall cell histology of PTC. The less frequent small cell type displayed minimal irregularities and cytoplasm and no inclusions. It matched microfollicular histology of PTC. The most important feature of PTC was seen at low power, and consisted of large to medium sized sheets with notable nuclear crowding.

Conclusions: Nuclear abnormalities in LBC of PTC could be focal or subtle. Recognition of the various cell types is necessary to avoid being dismissed when few in numbers, or admixed with benign elements.

Bladder cancer in spinal cord injury patients

Objective: Patients with spinal cord injury and neurogenic bladder dysfunction (NBD) display a high incidence of recurrent urinary tract infection and an increased risk of developing bladder cancer. Between 2000 and 2016, 106 cystectomies were carried out at the Unfallkrankenhaus Berlin, including 22 cases with chronic NBD.

Methods: All 106 cystectomy specimens were subjected to histological review. A total of 106 cystectomy cases from 22 patients with NBD and from 84 patients without NBD were analysed. These included 94 patients with bladder carcinoma (15 with NBD and 79 without NBD). In 12 cases (7 with NBD and 5 without NBD) the diagnosis was chronic urocytis. 7 of 15 cancer cases with NBD were diagnosed with squamous cell carcinoma (47%). On the other hand, only 6 of 79 cancer cases without NBD showed squamous cell carcinoma (7%, 6/79, P= 0.002). The tumors in patients with NBD presented with a more advanced stage (10/15; 67%, at least pT3a) in comparison to patients without NBD (45/79; 57% , at least pT3a).

Conclusion: Bladder cancers developing in patients with chronic NBD are significantly more frequently squamous cell carcinomas in comparison to patients without NBD. We postulate that this is due to chronic inflammatory changes in patients with chronic NBD.
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**ABSTRACT TEXT**

**Objective:** Implementation of Human Papillomavirus (HPV) vaccination should be considered a key cervical cancer prevention strategy in Tunisia, where Papanicolaou smear screening is not efficient. This study aims to estimate the prevalence and to identify risk factors associated with HPV infection among women from Tunisia.

**Methods:** We conducted a cross-sectional study, from December 2012 to December 2014 Eligible women for this study were those aged 18-65 years, sexually active, who sought medical attention at their primary health care centre or clinic in Grand Tunis, Tunisia and who gave written consent. A liquid-based Pap smear sample was obtained from all women using a cervical brush. Only women with betaglobin positive test were further analysed for HPV detection and typing. A nested-PCR of the L1 region was performed following by NGS sequencing. Multiple logistic regression modeling was used for the analysis of associations between variables with some considered possible confounders after checking for interactions.

**Results:** A total of 1518 women were enrolled in this study. A total of 1517 women were enrolled in this study and 1229 out of the 1517 cervical samples were positive for the betaglobin test. Overall HPV prevalence was 7.8% (6.5%-9.4%), with the following most prevalent HPV genotypes: HPV6 (40%), HPV40 (14%), HPV31 (12%), HPV16 (9%), HPV52 and HPV59 (7%), followed by HPV68 (4%). Mean age of HPV positive women was 40.7±9.2 years. Independently associated risk factors of HPV infection were smoking (OR:2.8 [0.8-9.6]), low income (OR:9.6 [1.4-63.4]), bad housing type (OR:2.5 [1.6-4.3]), partner with multiple sexual relationships (OR:4.5 [9.2-22.8]) and single women (widowed, divorced, separated, never married) (OR:6.3 [1.4-42.2]).

**Conclusion:** This study provides the first national-based estimate of HPV prevalence in Tunisia. Our findings contribute to the evidence on the current burden of HPV infection, the critical role of sexual behaviour and socioeconomic status and call for increased support for the screening program in Tunisia to prevent cervical cancer. These results allow us to evaluate the cost-effectiveness of vaccine program implementation in Tunisia in future.

Policy of full disclosure: /
Objective: Plasmablastic lymphoma (PBL) is an aggressive lymphoma, often arising in the context of immunodeficiency and associated with Epstein-Barr virus (EBV) infection. The role and latency program of EBV is still debated. The EBV had been identified in PBL by assessing the EBV latency patterns. The role and latency program of EBV is still debated. The EBV had been identified in PBL by assessing the EBV latency patterns.

Results: By means of qPCR we detected: EBNA1 (92.3%), EBNA2, EBNA3, EBER (92.3%) together with LMP-1 (7.7%) and LMP-2 (76.9%), BZLF1-ZEBRA (92.3%), BHRF1-A-Ea, BHRF1-Ea-R (77%), and BLF1-Ea (92%). IHC confirmed: 1) non-canonical latency associated program with the partial expression of some proteins characterizing latency II and lytic phase proteins; 2) reactivation of an abortive lytic cycle in neoplastic cells. The miRNA profiling revealed 19 of 45 EBV miRNAs to be expressed in PBL cases, all of which were confirmed by qPCR. In 42 PBL cases, the EBV latency program was searched for genes targeted by them and we found genes associated to the activation of an anti-EBV effect. In 14 PBL cases, the EBV latency program was searched for genes targeted by them and we found genes associated to the activation of an anti-EBV effect. In 14 PBL cases, the EBV latency program was searched for genes targeted by them and we found genes associated to the activation of an anti-EBV effect. In 14 PBL cases, the EBV latency program was searched for genes targeted by them and we found genes associated to the activation of an anti-EBV effect.

Conclusion: This report sheds new light on EBV lytic involvement in PBL. This may lead to development of specific therapies including combination of full EBV lytic cycle induction and anti-EBV drugs. Studies on the immunological microenvironment are ongoing. Policy of full disclosure: /
Clinicopathological correlations of CD44 and EGRF in oropharyngeal squamous cell carcinoma with respect to the American Joint Committee on Cancer 8th edition staging system

**ABSTRACT TEXT**

Objective: The objective of this study is to analyze the expression profiles of EGRF, CD44 and p16 in oropharyngeal squamous cell carcinoma (OPSCC) and to correlate them with radiotherapy treatment outcomes and clinicopathological parameters. Additionally, prognostic impact of the American Joint Committee on Cancer (AJCC) 8th edition staging system in comparison with 7th edition was evaluated.

Methods: The study included 77 OPSCC patients treated by definitive intensity-modulated radiotherapy (IMRT) in curative intent. Clinical staging was established according to the AJCC, both 7th and 8th edition. Immunohistochemical (IHC) analysis of CD44 and EGRF in primary biopsy tumor tissues. To evaluate the HPV status, IHC detection of p16 was employed.

Results: Application of the AJCC 8th edition staging system revealed significant correlations between overall survival (OS), progression-free survival (PFS), loco-regional control (LRC)/time to local recurrence and clinical stage. In our cohort of patients, p16 negativity (-), EGRF and CD44 positivity (+) were significantly associated with clinical stage IV of the disease. These correlations were not found if the AJCC 7th edition staging system was applied. Kaplan-Meier analysis displayed significantly worse OS and LRC for CD44+ and EGRF+ OPSCC. These cases also showed the worst 3-year OS and LRC. Better survival rates were confirmed in HPV-mediated p16+ OPSCC. Combined analysis of protein expressions identified a significant association between p16- and EGRF+, p16+ and CD44, and EGRF+ and CD44+. Combined immunoprofiles CD44+p16, EGRF+p16, and EGRF+CD44+ were associated with the worst OS and LRC. Conclusion: Combined immunoprofiles of p16, EGRF and CD44 might provide a valuable prognostic and predictive information for the individual OPSCC patients, especially in terms of response to IMRT and prediction of treatment outcome. Moreover, application of the AJCC 8th edition staging for HPV+ OPSCC proved to improve hazard discrimination and prognostication of OPSCC. Supported by the Czech Health Research Council project 15-31627A.

Policy of full disclosure: /
Objective: To evaluate the presence of EBV in a leiomyosarcoma cohort and describe clinicopathological features of EBV-SMT.

Methods: Retrospective archive search. ISH for EBER (Leica, Ready to Use) and immunohistochemistry for LMPI (EBV-C51-4, Leica) were performed on 3-4 mm diameter tissue microarrays of 93 leiomyosarcomas of various locations (55 uterine, 38 non-uterine), using Leica Bond Autostainer.

Results: Four cases were available: 2 cases previously diagnosed with core biopsy and 2 non-uterine cases (2/3, 2.2%) found to be positive for EBV in tissue microarrays. One case was 4 years-old child with immunodeficiency and the other 3 cases were elder females (55, 56 and 77 years-old). LMPI was negative in all cases. None of the adult patients had known immunosuppression. Renal cell carcinomas (papillary and clear cell) and grade 3 lymphomatoid granulomatosis of lung accompanied in 2 cases. Pediatric tumor was located at liver while adult cases involved thigh, pancreas and chest wall. Median tumor sizes were 13 cm (2.3 cm). Tumor was commonly multinodular and composed of short, to long fascicules of monotonous spindle cells. Pleomorphism was variable: mild in 2 cases, focal in 1 case and diffuse in 1 case. Lymphocytes accompanied the tumor cells only in 1 case. Immunohistochemistry was negative in all cases. One case also showed EBV-DNase expression. Two cases presented with metastasis to lungs and one case showed bone and pleural invasion.

Conclusion: EBV does not seem to play a role in the etiology uterine leiomyosarcoma. EBV-SMT can also occur in immunocompetent patients and may be associated with other malignancies. EBER testing may be helpful in diagnosing smooth muscle tumors occurring in unusual locations. Morphology is quite variable.

Policy of full disclosure: /
Targeted RNA-seq of gene fusions helps in the differential diagnosis of Ewing Sarcoma and Ewing-like Sarcoma

**ABSTRACT TEXT**

Objective: Ewing sarcoma (ES) are characterized by a canonical fusion involving EWSR1 gene in most of cases, and FLI1 as the most common partner. Ewing-like tumors (ELT) morphologically resemble ES but show a different clinical behavior and distinct chromosomal alterations involving CIC or BCOR. Therefore, differential diagnosis of ES and ELT upon histopathology and FISH can be challenging. Here, we explored the potential of targeted RNA-seq as an ancillary technique to improve diagnostic precision.

Methods: 28 cases with morphology suggestive of ES or ELT were FISH-probed to detect EWSR1 translocations (break apart probe). These 28 cases and 7 additional cases were studied with Archer™ FusionPlex™ Sarcoma Panel. Results: FISH EWSR1 rearrangement was detected in 16 cases. Targeted RNA-seq identified different EWSR1-FLI1 transcripts in 17 cases, and EWSR1-NAFTC2 fusion in a single case, thus achieving 100% sensitivity. Ten cases were EWSR1 FISH negative, and targeted RNA-seq identified 3 cases expressing EWSR1-ERG, 3 cases with CIC-DUXA, 2 cases with BCR-CCNB3, one case with EWSR1-FLI1, and one case without any fusion call. All cases without EWSR1 FISH data showed concordant results with a previously performed morphologic diagnosis (ESFT or ELT).

Conclusion: Targeted RNA-seq outscores FISH EWSR1 determinations overcoming common challenges such as low performance in detecting EWSR1-ERG. Moreover, the RNA-seq panel simultaneously detects ELT gene fusions, circumventing single gene FISH probing. We propose a diagnostic algorithm for differential diagnosis of ESFT and ELT in which negative EWSR1 FISH results are followed by an RNA-seq targeted panel assessment.

Policy of full disclosure: /
Objective: IQN Path is an international, multi-stakeholder expert association focused on improving quality of clinical biomarker testing. It develops tools and data resources to support External Quality Assessment (EQA) providers. This project aims to establish a high-quality, international digital education resource for benchmarking of Programmed Cell Death Ligand 1 (PD-L1) in Non Small Cell Lung Cancer (NSCLC) tissue. PD-L1 is an immune checkpoint protein that mediates anti-tumour immune suppression and response. Its detection using immunohistochemistry (IHC) in FFPE tissue predicts clinical response to PD-1/PD-L1 immunomodulator therapy e.g. Pembrolizumab and Nivolumab, and is used as a companion/complementary diagnostic in NSCLC. Correct interpretation of PD-L1 staining is critical for patient access to immunomodulatory drugs, yet evaluation of PD-L1 expression can be challenging with four different FDA approved assays and different scoring algorithms. The IQN Path gold-standard digital resource will ensure quality by allowing EQA providers to provide self-assessments of PD-L1 read-out for pathologists worldwide.

Methods: The “gold-standard” nature of this resource is ensured by:
- Only NSCLC tissue stained using manufacturer-approved, on-label methods using clones 22C3, 28-8, SP263 or SP142 are permitted.
- PD-L1 slides, plus corresponding H&Es, are scanned at the highest possible resolution (x40). On-slide controls are included.
- All scanned slides are submitted to an expert pathology advisory board before upload to the portal. This board approves the quality, defines the assessment questions, which reflect specific industry training & interpretation guidelines, and assigns the consensus scores used for final marking.

Results: The portal has been created and tissue sourced and scored. A pilot assessment is underway in early 2018. Conclusion: The portal will be made openly available to pathologists worldwide by registration via any member EQA scheme. The summary results will be published.

Policy of full disclosure: /
Abstract No. 102
Date & Time 16.10.2018 13:30-14:10
ABSTRACT TITLE: The immunohistochemical features of epithelial mesenchymal transition in pure adenovo-versus mixed adeno-neuroendocrine colorectal carcinoma

Objective: To present the immunohistochemical (IHC) features of epithelial mesenchymal transition (EMT) in consecutive series of colorectal adenocarcinomas (CRC) versus a rare histological variant called mixed adeno-neuroendocrine carcinoma (MANEC).

Methods: The prospective study, which was approved by the Local Ethical Committee, included 49 consecutive CRCs and 7 MANECs, without preoperative chemo(ther)apy. Tumor budding was quantified based on the International Tumor Budding Consensus Conference (ITBCC) 2016 recommendations. The EMT was evaluated using the markers E-cadherin, β-catenin and vimentin. The stemness molecule CD44 was also quantified. Cases with focally (more than 25% of cells) or complete loss of E-cadherin and cytoplasm-to-nuclear β-catenin translocation were considered to present EMT features.

Results: From the 49 CRCs, 23 were graded as low budding-tumors and 26 showed high budding in the invasion front (≥5 buds). The tumor budding intensity was correlated with pT (p<0.0001) and pN stage (p<0.0001). All of the seven MANECs showed low budding intensity but all of the patients died before one year after diagnosis, independently from the pT/pN stage. From the 26 high-grade CRCs, 13 cases showed total and 13 focally loss of E-cadherin in the invasion front. The cases with E-cadherin negativity in the invasion front showed nuclear translocation of β-catenin in the invasion front, CD44 negativity and focal expression of vimentin. All of the MANEC cells diffusely expressed E-cadherin, membrane β-catenin and CD44 but did not show vimentin positivity.

Conclusion: In CRCs with high tumor budding degree, loss of E-cadherin and membrane-to-nuclear translocation of β-catenin may be indicators of aggressiveness but the EMT of MANECs does not occur via Wnt/β-catenin pathway. The role of CD44 in inducing stemness properties of the tumor cells should be further explored.

Policy of full disclosure: /


**ABSTRACT TITLE:** Solitary fibrous tumor with adverse/ unfavorable histologic features. A clinicopathologic, immunohistochemical and molecular analysis of 27 cases.

**ABSTRACT TEXT**

Objective: Solitary fibrous tumors (SFT) are a rare type of mesenchymal lesion in which specific clinicopathologic factors have been related to patient outcome.

Methods: We collected clinical, histological, immunohistochemical and molecular data of 27 patients with histologically proven SFT which had at least one pathological factor associated with aggressive behavior (hypercellularity, 24 mitoses/10 HPF, pleomorphism, tumor necrosis, infiltrative margins and/or tumor size ≥10cm). We analyzed the pathological factors to predict recurrence/metastasis and clinical outcome. The risk of metastasis was calculated using four previously-described score systems.

Results: The mean age was 52.8 years. 55.5% had tumor size ≥10cm. Ten SFT were located in the head and neck region, 5 in the extremities, 6 (head and neck and 2 in 2 gastrointestinal organs. On histopathologic review, all tumors revealed hypercellularity with predominant round/spindle cell proliferation, 17 tumors had 24 mitoses/10 HPF and 10 showed necrosis, 10 revealed atypia/pleomorphism and 10 had infiltrative margins. Diffudifferentiation was observed in 3 tumors. STATE revealed strong nuclear immunoreactivity in all cases. CD99, Bcl2 and CD34 were positive in almost all cases. Ki67 positivity ≥15% was observed in 8 tumors. The NAB2/STAT6 gene fusion was detected in 15 tumors. With a median follow-up of 27 months, 32% suffered a recurrence, 31% metastasis (lung, liver) and 37% died of disease. 5 tumors had high risk of metastasis according to the Dimicco et al. score. The same 5 tumors also had score 4 (high risk of adverse outcome) based upon the Diebold et al. score system. Metastasis and/or recurrence had been detected in these 5 cases during follow-up.

Conclusion: SFT with adverse pathological parameters are not always related with poor outcome, thus indicating that SFT may have unpredictable clinical behavior. A refinement of risk stratification models could help to better evaluate outcome on SFT.

Policy of full disclosure: /
Objective: Small glomerular IgA deposits have been reported in patients with liver cirrhosis, mainly as an incidental finding in autopsy studies. We recently encountered nine cirrhotic patients who presented with acute proliferative glomerulonephritis with unusually large, exuberant glomerular immune complex deposits, in the absence of systemic lupus erythematosus (SLE) or mononclonal gammopathy-related kidney disease. Our aim was to further elucidate the etiology, diagnostic pitfalls, and clinical outcomes.

Methods: We present clinical features, kidney biopsy findings of nine cirrhotic patients with an unusual acute immune complex glomerulonephritis (Fig. 1). We also identified native kidney biopsies from all patients with liver cirrhosis at our institution over a 13-year period (January 2004 to December 2016) to evaluate presence of glomerular IgA deposits in them (n=118).

Results: Six of nine cirrhotic patients with the large immune deposits had a recent (concurrent) bacterial infection, prompting a diagnosis of infection-associated glomerulonephritis and treatment with antibiotics. In the remaining three patients, no infection was identified and corticosteroids were initiated. Three of nine patients recovered kidney function (one recovered kidney function after liver transplant); three patients developed chronic kidney disease but remained off dialysis; two patients became dialysis-dependent and one patient developed sepsis and expired shortly after biopsy. Within the total cohort of 118 patients with cirrhosis, 67 others also showed IgA deposits, albeit small; and 42 patients had no IgA deposits.

Conclusion: Liver dysfunction may compromise clearance of circulating immune complexes, enabling deposition in the kidney. At least in a subset of cirrhotic patients, a superimposed bacterial infection may serve as a “second hit” and lead to acute glomerulonephritis with exuberant immune complex deposits. Therefore, a trial of antibiotics is recommended and caution is advised before immunosuppressive treatment is offered.

Policy of full disclosure: /
Central nervous system tumors in adolescents and young adults: Epidemiological study from Jordan

ABSTRACT TEXT
Objectives: Adolescents and young adults (AYA) age group lacks targeted epidemiologic studies that assess the prevalence and outcome of tumors. We aim to provide a deep analysis of the epidemiology of central nervous system (CNS) tumors in AYA in Jordan.

Methods: This is a retrospective study for all CNS tumors diagnosed in the AYA group patients diagnosed and managed at King Hussein Cancer Center (KHCC) in 2007-2017. Patients list was retrieved from the Center's cancer registry and clinicopathologic data was reviewed individually from the patients' records. Results: A total of 370 cases of primary CNS tumors were retrieved, with a median age of 29.5 years. Males outnumbered females: 57.6% and 42.4%, respectively (p-value=0.51).

Most tumors occurred in the cerebrum (72%, n=260), the frontal lobe was most commonly affected (29%). Gliomas were the most common histologic category, comprising 58.9% (n=218). High grade gliomas, including glioblastoma multiforme and anaplastic astrocytomas, were the most common. Embryonal tumors comprised the second most common group (16.8%, n=62). Medulloblastoma was the prototype of embryonal tumors (91.9%; n=57) and these were diagnosed in the cerebellum. Gliomas tended to affect older age group than embryonal tumors (p-value=0.002).

On last available follow up, 29.5% were lost to follow up, 40% were alive, and 34.6% were deceased. The median overall survival (OS) was 47.6 months. Embryonal tumors had a better outcome than gliomas (median OS 76.3 vs. 30.3 months, respectively; p-value=0.001).

Conclusion: High grade gliomas affecting the cerebrum were the most common tumors among AYA group, and were associated with a less favorable outcome compared to embryonal tumors. More research is needed to address this special age group.

Policy of full disclosure: /

PREDICTING THE RET ONCOGENE MUTATION IN MEN2A PROBANDS - A META-ANALYSIS

ABSTRACT TEXT
Objective: Multiple endocrine neoplasia type 2A (MEN2A) is a rare familial cancer syndrome that is characterized by a germline mutation in the RET proto-oncogene and is classically defined as the clinical triad of medullary thyroid carcinoma, pheochromocytoma, and parathyroid hyperplasia. To address the need for an extrapolation of the RET oncogene mutation, this study aims to present a predictive model that presents the likelihood that patients 30 years old and below presenting with medullary thyroid carcinoma and pheochromocytoma may have a high risk RET mutation, thus the meta-analysis of all reports containing the age of diagnosis and the mutation of their respective probands.

Methods: All the reported cases archived in PUBMED and EMBIO under the search string “multiple endocrine neoplasia type 2A” AND “mutation” [All Fields] were reviewed for the required information and adjusted for duplicated entries.

Results: C634R is the most commonly detected mutation in the 30 year old and younger age group, and was observed in 56% of the probands. There is a significant difference between the occurrence of C634R in the younger age group versus all the other mutations in the said group, in comparison to the C634R occurrence versus the other mutations in the older age group (p=0.05), and that the higher percentage of C634R in the younger group did not occur by chance. Furthermore, the odds that someone from the younger group would have a C634R mutation is four times more than that of someone from the older group, with the OR = 3.8 (95% CI 1.4-10.25).

Conclusion: The result of this predictive modelling will allow a basis for clinicians to provide the information regarding the urgency for molecular testing to verify if the proband indeed has a high risk mutation. Moreover, clinical laboratories that would like to establish targeted testing in their screening programs for MEN2A may opt to focus on the more prevalent high-risk mutations such as p.Cys634Arg, alongside p.Cys634Gly and p.Val626Met. The role of this predictive model is to optimize mutation testing versus constraints that are constantly experienced in a resource limited setting.

Policy of full disclosure: /
Objective: To evaluate the underlying pathology in women who had Atypical Glandular Cells (AGCs) on Pap smears.

Methods: Retrospective cross-sectional study. Cytologicalpathological data of patients with AGC on Pap smears between January 2015 and December 2017 was retrieved from the computerized database of a tertiary care center. Patients with a prior history of cervical intraepithelial neoplasia or gynecological cancer were excluded.

Results: Pap smear of the uterine cervix was carried out in 36,500 patients. 40 patients (0.109%) with AGC were identified and histological follow up was available for all of these. The median age at diagnosis was 49 years (range, 28–79), and 16 women (40%) were postmenopausal, while 28 (70%) had gynecological symptoms. Significant preinvasive or invasive lesions on pathologival examination were detected in 13 (32.5%) patients, including 2 cervical intraepithelial neoplasia II (15.3%), 3 cervical carcinomas (23%), 4 endometrial adenocarcinomas (30.7%), 2 ovarian adenocarcinomas (15.3%), and 5 metastatic tumors (15.3%). Univariate analysis showed that significantly lower outcome was associated with postmenopausal status (P = 0.001), age >50 years (P = 0.001), symptomatic (P = 0.04) and AGC ‘favor neoplasia’ on results (P = 0.04). Conclusion: Patients with AGCs on Pap smears need a thorough clinical and histological workup, especially if they are older than 50 years, postmenopausal or symptomatic.

Policy of full disclosure: /
TILs > 10%, 9 ne marrow replacement by neoplastic or non

Objective: Epstein-Barr virus (EBV) infection is a common feature of B cell lymphoproliferative disorders (LPDs), including Burkitt lymphoma (BL) and diffuse large B lymphoma (DLBCL), with a frequency ranging from 10% to 100% in endemic BL cases. The possible contribution of EBV to B-cell lymphomas pathogenesis is largely unknown and it is unclear how directly infection and disease are linked. It has been recently demonstrated that EBV might be associated with all of the BL cases, including those diagnosed as EBV negative by routine methods (i.e. immunohistochemistry – IHC and EBV-encoded RNAs (EBER) in situ hybridization – ISH) thanks to a mechanism of hit-and-run. Indeed, to escape the immune system, the viral genome is progressively lost from the host human cell. The aim of this study was to identify the presence of EBV infection in a series of “EBV negative” B-cell lymphomas by applying conventional (IHC and EBER-ISH) and non-conventional methods (i.e. EBV load measurement by real-time quantitative PCR, RNAseq approach).

Methods: We investigated a total of 71 cases, namely 14 BL, 29 DLBCL, 10 FL and 16 HL. First of all we performed routine H&E and EBV stains on all of the cases (IHC and EBER-ISH), and then we performed an additional EBV load test and four-color FISH on a subset of cases. Furthermore, we performed RNAseq analysis on 6 BL samples.

Results: We reported a significant presence of the virus in 100% (4/4) of FL, 45% (11/24) DLBCL, 30% of FL (3/10) and 47% (7/15) of HL cases, demonstrating EBV infection also in those samples diagnosed as “EBV negative” by EBER-ISH assay. Of note, our results showed an higher viral load in the 6 FL-EBER positive compared with the 11 DLBCL, 10 FL, and 7 HL-EBER negative cases. The EBV load was higher in cases with the expression of EBV-encoded miRNAs. In particular, we confirmed the expression of miR-BART19, miR-BART10-3p, and miR-BART15-3p.

Finally, to validate our results we performed RNAseq assay, a novel RNA in situ hybridization technology that let us to target each RNA do the specific protocol. In particular we confirmed the expression of EBV-positive miRNAs.

Conclusion: An early and accurate identification of EBV infection in BL lymphomas might help in defining the best therapeutic approach in patients with refractory to said treatment, chemotherapy, or surgery, ultimately requiring pleurodesis.

A Frequency of Mismatch Repair Proteins (MMRPs) deficiency among young Jordanians diagnosed with colorectal carcinoma (CRC)

Objective: Microsatellite instability ( MSI) caused by Mismatch Repair Proteins (MMRPs) deficiency is detected in about 15% of sporadic colorectal cancers (CRC). About 25% of (MMRPs) deficiency is caused by inherited predisposition syndromes. Immunohistochemical analysis is an easy and convenient method to test for these proteins. This study provides the prevalence and clinicopathological characteristics of MMRP deficient colorectal carcinoma in young Jordanian patients diagnosed with CRC.

Methods: This study targeted cases of CRC diagnosed and treated at King Hussein Cancer Center from 2004 until 2012 in patients 45 years of age or younger at the time of diagnosis. Clinicopathological data was obtained from 155 patients’ records. Immunohistochemistry for MLH1, MSH2, MSH6, and PMS2 proteins were performed on paraffin embedded tissue sections containing carcinoma.

Results: The median age of patient at diagnosis was 38 years. A total of 29 (19%) cases showed deficient MMR (dMMR) expression. Loss of expression of PMS2 was seen in 17 cases, 12 cases of which showed loss of MLH1 Expression. Loss of expression of MSH6 was seen in 10 cases, 9 of which showed loss of MSH2 expression. One case showed loss of all four MMR proteins and another case showed loss of PMS2/MLH1 and MSH6. There was a significant association between abnormal MMR gene protein expression and tumor location proximal to splenic flexure and pathologic features suggestive of microsatellite instability (mucinous component, intraepithelial lymphocytes and Crohn’s like reaction). Patients with deficient MMR (dMMR) CRC appeared to have a significantly better overall survival compared to that in patients with proficient MMR (pMMR).

Conclusion: Our study shows that dMMR often occurs in patients with early onset low-stage CRC, and that dMMR can serve as a biomarker for better prognosis. These results are of value in directing the clinical management of young patients with CRC.

Policy of full disclosure: /
Abstract Title: HPV in laryngeal and hypopharyngeal lymphoepithelial carcinoma

Abstract Text: Objective: To investigate the role of HPV in laryngeal and hypopharyngeal lymphoepithelial carcinomas (L&HLECs). Methods: Cases were retrieved from the files of three tertiary hospitals attending a population of 1,319,723 in a period of 18 years. EBV was investigated through EBER in situ hybridization. HPV was investigated through a PCR and hybridization of the amplified fragment method (Inno-lipra). p16 and p53 protein expression were investigated through immunohistochemistry. Clinical data were retrieved from hospital charts.

Results: Ten cases (7 laryngeal and 3 hypopharyngeal) were retrieved among 4952 laryngeal and hypopharyngeal carcinomas. Three cases came from the population of reference, the others were retrieved from other centers. Calculated incidence was 0.01 cases/year and 100,000 inhabitants and prevalence was 0.2% of laryngeal and laryngeal-hypopharyngeal carcinomas. All cases were EBV and HPV positive. HPV DNA was detected in 5 cases (4 type 16 and 1 type 58), p16 overexpression was detected in 4 cases, three of them in the HPV-positive cases, all of them laryngeal. The type 58 positive case was negative in a second sample of the tumor.

Conclusion: L&HLECs is a rare neoplasia. The causative role of EBV in L&HLECs results unlikely. HPV/p16-positive cases indicate a causative role for HPV in a fraction of laryngeal lymphoepithelial carcinomas

Policy of full disclosure: /
Objective: Anti-phospholipid antibody syndrome (APS) is an acquired pro-thrombotic autoimmune disease caused by the presence of antibodies against anticoagulant phospholipids or plasma proteins bound to phospholipids on cell membranes. It can be a primary disease or secondary to other autoimmune diseases, most commonly systemic lupus erythematosus (SLE). Laboratory testing for APS may only be transiently positive, so it could be missed until a catastrophic vascular episode or pregnancy morbidity occurs. In the kidneys, this manifests as thrombotic microangiopathy (TMA), and patients present with hypertensive urgency and acute kidney injury. However, APS may not always have a catastrophic presentation but instead a more subclinical course. Kidney biopsy may not show obvious active TMA lesions but rather only chronic injury in the form of zonal cortical scarring and tubular thyroïdization. Still, it may warrant anticoagulation therapy. So it is important to recognize this pattern of injury in the biopsy.

Methods: We retrospectively studied the correlation between presence of this histologic feature in kidney biopsies of SLE patients and positive anti-phospholipid antibody (aPL) test results (using anti-cardiolipin antibodies and lupus anticoagulant). Kidney biopsies of SLE patients from 2004 to 2015 (n=157) were screened for presence or absence of zonal cortical scarring. Their electronic medical records were reviewed for aPL tests.

Results: Our study showed low sensitivity (31%) and positive predictive value (54%) but high specificity (98%) and negative predictive value (74%). The distribution of the histologic lupus classes among these biopsies showed that the presence of biopsies with zonal cortical scarring and tubular thyroïdization found to be highest among the unclassified group, that is the group of lupus patients with biopsy showing predominant glomerular sclerosis and few to absent (resorbed) immune complexes, therefore no active lupus nephritis. Conclusion: If this histologic feature is present in the biopsy, it is strongly suggestive of a positive aPL test, which could lead to APS but does not necessarily exclude it. It is not a negative screening tool, but if present, then the likelihood of underlying aPL is quite high. Immunosuppressive therapy alone in the absence of anticoagulation treatment may slow down the inflammatory process and immune complex formation, but not the remodeling vaso-occlusive lesions and chronic ischemia as a result of which the cortical scarring may still continue. We want to emphasize that the recognition of this histologic feature in the biopsies of SLE patients is important so as not to miss the opportunity to offer anticoagulation therapy and possibly slow down the chronic renal damage.

Policy of full disclosure:

ABSTRACT TITLE: Zonal cortical scarring and tubular thyroïdization in kidney biopsies of patients with SLE - histologic indicator for anti-phospholipid antibodies

ABSTRACT TEXT: Objective: Anti-phospholipid antibody syndrome (APS) is an acquired pro-thrombotic autoimmune disease caused by the presence of antibodies against anticoagulant phospholipids or plasma proteins bound to phospholipids on cell membranes. It can be a primary disease or secondary to other autoimmune diseases, most commonly systemic lupus erythematosus (SLE). Laboratory testing for APS may only be transiently positive, so it could be missed until a catastrophic vascular episode or pregnancy morbidity occurs. In the kidneys, this manifests as thrombotic microangiopathy (TMA), and patients present with hypertensive urgency and acute kidney injury. However, APS may not always have a catastrophic presentation but instead a more subclinical course. Kidney biopsy may not show obvious active TMA lesions but rather only chronic injury in the form of zonal cortical scarring and tubular thyroïdization. Still, it may warrant anticoagulation therapy. So it is important to recognize this pattern of injury in the biopsy.

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Policy of full disclosure:
Objective: Predatory journals have recently come into focus due to their massive international expansion and extensive spam email soliciting. Recent papers have highlighted this urgent problem in neurosciences/urology and physical medicine. In the present study, we analysed the presence and role of predatory journals in pathology.

Methods: We explored the major bibliographic databases (PubMed/MEDLINE, Web of Science/SCIE/SCIE/JCR, Scopus, Google Scholar) to identify potential predatory pathology journals. The Beall’s list served as an initial database while previously established criteria (BMC Medicine 2017;15:28) were used for the assessment.

Results: We identified 93 legitimate pathology journals from the major bibliographic databases and 79 potential predatory pathology journals out of 359 journals from the Beall’s List. All potential predatory pathology journals shared at least one common poorly-quality feature that included a lack of website integrity, missing/pending ISSN number, unclear peer reviews, and emphasis on open-access policy, anonymous, and/or missing names of editorial board members, ambiguous/unclear peer-review process, and considerably variable article-processing fees (ranging from 500$ to 2500$). In addition, we identified 24 potential predatory pathology journals having misleading titles, similar or identical to those of legitimate journals. 31% of these journals were included in the databases that generate bogus impact factors (e.g., Index Copernicus, Cosmos Impact Factor, J-Gate). Only one of the identified journals was listed in DOAJ; however, none of these journals were included in PubMed/MEDLINE and Web of Science nor have they had a legitimate impact factor in the JCR (“white list” journal). In contrast, none legitimate pathology journals were listed in Beall’s list (“black list” journal).

Conclusion: This study highlights the large number (79/359) of predatory pathology journals that could pose a significant challenge and threat to the academic community. This study may aid pathology researchers in their decision-making process when submitting manuscripts for publication.

Policy of full disclosure: /

ABSTRACT TITLE:
Histological and molecular correlates of PDL-1 in gliomas

ABSTRACT TEXT:
Objective: Gliomas constitute 51.4% of all brain tumours. The treatment options are limited to the academic community. This study may aid pathology researchers in their decision-making process when submitting manuscripts for publication.

Policy of full disclosure: /

ABSTRACT TITLE:
Prognostic histological and clinicopathological features of triple negative breast cancer based on a large Dutch multicentre cohort

ABSTRACT TEXT:
Objective: Much research has been focussed on novel prognostic biomarkers for triple negative breast cancer (TNBC), whereas relatively little information about the prognostic value of histological and clinical parameters in TNBC is available. This study aims to assess the prognostic value of clinicopathological features of TNBC.

Methods: A multicentre retrospective TNBC cohort was established using the Netherlands Comprehensive Cancer Registry. From 5 hospitals from Eastern Netherlands, all patients with oestrogen receptor, progesterone receptor and HER2 negative breast cancer diagnosed between 2006 and 2014 were selected. Neoadjuvant treatment and stage IV disease at initial presentation were exclusion criteria. Clinical and follow-up data (overall survival (OS) and disease free survival (DFS)) were retrieved and central review of histological type and grade was performed.

Results: Of 597 patients included (median follow up 61.1 months, median age at diagnosis 56.0 years), 19.4% developed a recurrence, after which 61.2% died from metastatic TNBC. The most common histological subtypes were hormone non-special type (NST) (88.3%), metastatic carcinoma (4.4%) and lobular carcinoma (3.4%). Special histological subtypes were independently associated with a worse DFS compared to carcinoma NST (HR 1.88; 95% CI 1.11–3.30; p = 0.019). Other independent risk factors for a worse DFS were higher tumour and lymph node stage and not receiving adjuvant therapy, the latter yielding the highest risk (HR 3.49; 95% CI 2.08–5.77 p < 0.001). A higher tumour and lymph node stage and not receiving adjuvant chemotherapy were also correlated with a worse OS.

Conclusions: Almost 1 in 5 patients developed a TNBC recurrence with a subsequent high risk of dying from metastatic disease. Histological subtype was found to be an independent prognosticator for DFS. Careful histological examination can provide specific prognostic information and enables more personalized treatment and surveillance regimes for TNBC.

Policy of full disclosure: /
Objective: HIV-1 prevalence is at horizon of incline in general population because of people engaged in high-risk practices such as drug abuse, sexual activities, shared needles, healthcare exposure or through unsafe blood transfusion and transmission from mother to child are frequently being observed in Pakistan, which accounted Pakistan a low-resource country where increase in prevalence is observed among high-risk groups. So, it is important to identify circulating HIV-1 strains in Pakistan for the better understanding of the origin of emerging HIV-1 CRF in Asian countries and their transmission dynamics. In this study, we observed that majority of the sequences were clustering with subtype A1, C and G. Furthermore, we also observed that few of the sequences were clustering with subtype F0, a non-circulating subtype which is not present in Pakistan. Our results are consistent with previously reported circulating subtype A1, C and G. Furthermore, we also observed that few of the sequences were clustering with subtype F0, a non-circulating subtype which is not present in Pakistan. Our data for geographic linkages are closely clustering with resource country which is working on: We observed that majority of the sequences were clustering with subtype A1, C and G. Furthermore, we also observed that few of the sequences were clustering with subtype F0, a non-circulating subtype which is not present in Pakistan. Our data for geographic linkages are closely clustering with resource country which is working

Methods: Formalin fixed paraffin embedded (FFPE) tumor samples and clinical data from 32 cases with high CD4 lymphocytes and macrophages). The TILs were represented mainly by CD4 positive/CTLA4 negative central memory T cells. Growing knowledge about immune pathology in PTL along with the implementation of response), FOXP3 (CD4 negative/CD25 positive regulatory T cells) and CCR7 (C-C motif chemokine receptor 7) are important for the regulation of T cell mediated immune response, and an inverse correlation with PD-L1/PD-L2 pathway may be one of the most promising therapeutic targets for PTL. As far as the tumor and its microenvironment is concerned, we detected PD-L1 expression was detected in 25% of cases, in a percentage of neoplastic cells ranging from 40% to 60%. The pilot statistical evaluation seems to suggest an adverse prognostic impact of PD-L1 expression which may guide therapeutic choices and eventually improve the prognosis of these unfavorable tumors.

Conclusion: Objective: To present an unusual AME with carcinoma of the breast. Method: A 69-year-old female presented with a left breast mass. A mastectomy and sentinel lymph node biopsy were performed. A lobulated circumscribed tumor at the lower outer quadrant measuring 50x45x35mm was identified. The specimen was processed and immunohistochemical stains performed. Histologically, the cell-rich tumor showed, a well circumscribed, unencapsulated multilobulated tumor with central necrosis. A proliferation of neoplastic cells and a dense lympho-plasmacellular infiltrate around neoplastic epithelial cells. The epithelial cells were not atypical. Neoplastic myoepithelial cells showed epithelioid cytomytology with marked nuclear pleomorphism, irregular nuclear contours, vesicular chromatin, and clear cytoplasm, with microscopic satellite tumor deposits at the periphery of the tumor. Results: Immunohistochemical stains showed positivity with p63, CK5/6, SMA, Bcl-2, CD10, PAX-5, PD-L1, PDL2, PD-L2 and CD20 was carried out. Tumor infiltrating small lymphocytes (LCA, FOXP3 and CD3) were also expressed as well as the expression of MYC protein. Stained slides were reviewed separately by two pathologists.

Conclusions: Understanding what factors determine if a patient will respond is a crucial step in selecting the most appropriate therapeutic approach. Therefore, it is important to address what these markers are and their relative importance. If our preliminary results will be confirmed, the present study will open new avenues for identifying predictive biomarkers that may guide therapeutic choices and eventually improve the prognosis of these unfavorable tumors.

Policy of full disclosure: /
CLINICAL TEXT
Objective: The primary objective of this work is to evaluate the local expression of the proteins that characterize ERE and its relationship with the expression of IL-1β, which is the main biologically active form of IL-1, in the context of leprosy correlating with clinical-evolutionary aspects of the disease.
Methods: In this study, we analyzed, by immunohistochemistry, the tissue expression of inflammammasome markers (IL-1β, GRP78/BIP, PERK, IRE1α, and ATF6) in 46 leprosy skin lesion samples, 13 were indeterminate, 15 were tuberculoid, and 18 lepromatous leprosy. Results: Cell expression of GRP78/BIP was higher in TT lesions (13.84 ± 3.3 cell/field) than in LL lesions (10.41 ± 2.57 cell/field) or IL lesions (8.96 ± 3.15 cell/field). PERK expression was also higher in TT lesions (13.33 ± 3.68 cell/field) than in LL (12.48 ± 3.77 cell/field) or IL (7.49 ± 2.61 cell/field) lesions; with difference statistically significant between TT and LL and LL and IL lesions. IRE1α was highly expressed in TT (12.21 ± 2.35 cell/field), followed by LL (7.84 ± 1.14 cell/field), and IL (7.34 ± 2.17 cell/field) lesions, with a statistically significant difference between TT and the other clinical forms. ATF6 was more expressed in TT lesions (10.11 ± 2.38 cell/field), followed by LL (9.46 ± 3.58 cell/field) and IL (7.19 ± 2.7 cell/field) lesions. PERK expression was significantly higher in TT (10.24 ± 2.6 cell/field) compared with LL (7.12 ± 2.9 cell/field) and IL (7.19 ± 2.7 cell/field) lesions; with difference statistically significant between TT and LL and LL and IL lesions.
Conclusion: This is the first study evaluating the clinical expression of lysosomal proteins and their role in the response to infection by M. leprae. The presence of specific patterns of expression of the molecules tested could be related to different clinical phenotypes of leprosy.
A limitation of this study is the small number of patients who underwent adnexectomy that limits the statistical power and the relevance of the results in the general population.
Policy of full disclosure: /
### ABSTRACT TEXT:
MicroRNA-320d is frequently downregulated in diffuse large B cell lymphoma and inhibits cell proliferation by directly targeting CDK6

**Objective:** To investigate the role of CDK6 and microRNA-320d in diffuse large B cell lymphoma (DLBCL) and their relationship between CDK6 and miRNA-320d.

**Methods:** Eighty-five cases of DLBCL with follow-up data were analyzed. Immunohistochemical EnVision method was used to detect CDK6 expression in tissue sections. Bioinformatics software and dual-luciferase reporter assay were used to predict and validate the potential target of microRNA (miR)-320d, respectively. Overexpression and small-hairpin RNA knockdown of CDK6 were performed by lentiviral transduction. Cell proliferation was assessed using the CCK-8 assay. Western blotting and qRT-PCR was respectively used to detect the expression of the CDK6 protein and mRNA in DLBCL tissues transcribed with miR-320d lentiviral vector.

**Results:** CDK6 is upregulated in DLBCL patients with poor prognosis. Overexpression of miR-320d or knock-down of CDK6 inhibit proliferation in GCB type of DLBCL cell; CDK6 is a direct target of miR-320d.

**Conclusion:** The CDK6 protein was highly expressed in DLBCL tissues and was correlated with inferior outcome of DLBCL patients. The overexpression of miR-320d could suppress DLBCL cell proliferation through targeting CDK6, suggesting that miRNA-320d might be a potential therapeutic target for the treatment of DLBCL with high CDK6 expression.

Policy of full disclosure: /

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### ABSTRACT TEXT:
PD-L1 expression in cervical squamous cell carcinoma

**Objective:** Programmed cell death-1 and programmed cell death ligand-1 (PD-1/PD-L1) blockade has become an important treatment modality for cervical squamous cell carcinoma (SCC). However, PD-L1/PD-L2 (affinity for PD-1) expression is variable and the correlation between PD-L1/PD-L2 and PD-L1/PD-L2 expression and patient outcome remains controversial. We aimed to investigate the expression and clinical significance of PD-L1/PD-L2 in cervical SCC.

**Methods:** We performed immunohistochemical staining with PD-L1/PD-L2 antibodies in 45 cervical SCC cases. PD-L1/PD-L2 expression was assessed using a standard 1.5–2.0 mm thick tissue section of formalin-fixed, paraffin-embedded tissue. PD-L1/PD-L2 expression was scored as 0, 1, 2, or 3, with 3 being the highest score. The association between PD-L1/PD-L2 expression and patient survival was analyzed using the log-rank test.

**Results:** In 2018, 15.1% of cervical SCC cases had PD-L1/PD-L2 expression. The overall survival rate for patients with PD-L1/PD-L2 expression was significantly lower than that for patients without PD-L1/PD-L2 expression (p < 0.05). The 5-year overall survival rate for PD-L1/PD-L2-positive patients was 72.4%, whereas for PD-L1/PD-L2-negative patients it was 93.8% (p < 0.05). PD-L1/PD-L2 expression was significantly associated with nodal status, tumor stage, and lymphatic invasion (p < 0.05).

**Conclusion:** PD-L1/PD-L2 expression is correlated with poor prognosis in cervical SCC. Our findings suggest that PD-L1/PD-L2 expression may be a potential biomarker for the identification of patients with poor prognosis in cervical SCC. Further research is needed to validate these findings in larger cohorts.

Policy of full disclosure: /
Liver tissue: The ultimate sample to document infection by an oncogenic hepatitis B virus in serology negative individual in a developing country

Objective: to document and characterize HBV DNA in liver tissue in occult HBV infection with follow-up serology study

Methods: Patients included in the study were those who were HBV serology negative and underwent major abdominal surgery for conditions that were unrelated to primary liver disease. All had normal liver transaminases. Tissue available were wedge biopsy of liver, segmental resection for metastatic tumor and liver along the gall bladder bed. Due to the presence of morphological evidence of chronic hepatitis in liver histology, the selected cases were documented to show on immunohistochemistry (IHC) staining positivity for HBV surface and or core antigens. Paraffin sections of the liver were used for nested PCR for HBV DNA.

Results: 100 cases were enrolled, M:F=1:1, median age of 42 years, 96 biopsies showed strong HBcAg cytoplasmic +ive with nuclear in 20, 44 biopsies had HBsAg positive, 94 PCR positive. Half of the patients were followed-up for 6 to 12 months, none had developed hepatitis, however 2 patients became positive for anti HBc IgG.

Conclusion: occult hepatitis B is a common clinically underdiagnosed condition, warranting a high load of HBV infection amongst serology negative population in a middle income group developing country. Liver tissue proves to be an ideal sample to document HBV infection.

Policy of full disclosure: /
The XXXII Congress of the International Academy of Pathology
Welcome Notes

By the President of the Congress
Past President,
Arab Division of the International Academy of Pathology

On behalf of the Arab Division of the International Academy of Pathology (ADIAP) in collaboration with the Jordanian Society of Pathology (JSP), I would like to welcome you to the XXXII Congress of the International Academy of Pathology (IAP), and the 30th Congress of the Arab Division of IAP, that is hosted at King Hussein Bin Talal Convention Centre – Dead Sea, near Amman-Jordan (14 - 18 October 2018).

This would be an unbeatable chance to update your knowledge on all aspects of diagnostic and molecular pathology, along with getting the chance to visit and enjoy science at the lowest point on Earth, the Dead Sea.

Throughout its relatively short journey of 30 years, the Arab Division has become an active member in pathology education and continuing professional development both for practicing and trainee pathologists in the Arab world and the region.

By thriving to create a safe environment for optimal patient care, the congress will highlight recent updates in the various pathology disciplines.

This will be achieved by mixing the traditional pathology approaches in the various pathology systems along with the more modern approaches including molecular pathology, genomics and bioinformatics as well as digital pathology and tele pathology.

In addition, teaching and education in pathology and quality in surgical pathology will have an ample share and representation.

The scientific committee has worked hard to deliver a rich program that includes keynote lectures and more than 188 sessions which will integrate presentations by eminent international experts from all around the world.

Jordan remains one of the most politically and economically stable countries in the region and is a safe destination with a strategic location in the middle of the globe. It is very well connected internationally with easy accessibility and with no visa limitations. We are pleased to welcome you in Jordan - your presence and participation is make all the difference.

Prof. Ismail I. Matalka, FRCPath