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The 7th Annual Scientific Meeting, International Academy of Pathology, Malaysian Division Kuantan 2021: Dermatopathology, Uropathology and Gynaecologic pathology was held virtually on 5th-7th March 2021. Abstracts of paper (poster) presented are as follows:

ORIGINAL ARTICLES

AR01 Sinonasal eosinophilic angiocentric fibrosis as a solitary manifestation of immunoglobulin G4-related disease

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Introduction: Sinonasal eosinophilic angiocentric fibrosis (EAF) is a rare, locally destructive fibro-inflammatory condition of the upper respiratory tract. Although now recognised as a manifestation of IgG4-related disease (IgG4-RD), EAF shows little response to medical therapy, is rarely associated with systemic involvement and often lacks a raised serum IgG4 level. This study describes the clinicopathologic characteristics of this rare disease relating to diagnosis and treatment. *Materials and methods:* Seven cases of EAF were identified retrospectively from the Head and Neck Pathology service at Guy's Hospital. Demographic, clinical, diagnostic and follow up data were compiled, and H&E slides were reviewed. All cases were subjected to immunohistochemical staining for IgG and IgG4. *Results:* Patients (1 male, 6 female) ranged from 28 to 64 years old (mean, 37.1 year). Clinical presentation was ulceration/necrosis (2/7) and congestion/obstruction (5/7) of the nasal cavity. Three patients were atopic. No patients had lesions in other organ systems. Serum IgG4 level was raised in one patient (4.12 g/L; normal 0.23-1.11g/L). All 7 lesions showed onion skin/storiform fibrosis, eosinophils and prominent plasma cells. Four had obliterative phlebitis. Only in 4 cases did the plasma cell IgG4/IgG ratio exceed 40%. Medical treatment alone was ineffective. *Conclusion:* EAF is a solitary manifestation of IgG4-RD but often has insufficient evidence of the underlying disease process in serum or tissue. Surgery remains the mainstay of treatment with post-operative glucocorticoids effective in maintaining a disease-free state.

AR02 Histopathological correlation of breast carcinoma with BI-RAD Sscoring system

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Background: Breast cancer is one of the commonest malignancy worldwide and the BI-RADS classification has been utilised extensively as an adjunct to histopathological examination for malignant breast diseases. *Objective*: The aim of this study is to analyse the concordance between radiological and histopathological findings, demonstrating the high predictive value in BI-RADS category and evaluating the impact of these findings on surgical intervention and treatment outcome. *Methods*: This is a single institute retrospective study, analysingpatient'sdata over a period of three years who underwent radiological examination with BI-RADS 3,4 and 5 followed by histopathological examination confirming the diagnosis based on breast core biopsy or excision specimen. *Results*: 316 specimens from 310 patients were included in this study; 75 cases were reported as BI-RADS 3, 166 as BI-RADS 4 and 75 as BI-RADS 5. Out of these cases 66 (20.8%) that received a BI-RADS 3, 82 (25.9%) as BI-RADS 4 and 5 (1.6%) in BI-RADS 5 were reported as benign on histopathological examination. Malignant cases were reported in 9 (2.8%) cases in BI-RADS 3, 84 (26.6%) in BI-RADS 4 and 70 (22.2%) in BI-RADS 5. The positive predictive value, negative predictive value, sensitivity and specificity were 63.9%, 88%, 94.48% and 43.14% respectively. *Conclusion*: There is significant correlation between BI-RADS score and histopathological results of breast cancer. Higher BI-RADS score is associated with higher possibility of malignancy ($p<0.001$). Our institution performance is comparable to other published data.

AR03 Comparison between existing and novel markers in GIST

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Introduction: Gastrointestinal stromal tumours (GISTs) are the most common mesenchymal tumour within the gastrointestinal tract, derived from interstitial cells of Cajal. It is commonly seen in middle-aged and elderly. Globally, incidences are between 10 to 15 GISTs cases per million. The aim of this study is to analyse GIST cases according to demographical and clinicopathological parameters and demonstrate correlations between existing panel with new novel markers for diagnostic purposes. *Materials & Methods*: 30 GISTs cases were obtained from Histopathology Unit, Hospital Selayang, from January 2012 until December 2018. The statistical analysis according to demographical (age, gender and race) and clinicopathological (morphological subtype, size,

mitotic count and site) parameters in correlation with the existing panel (*c-KIT*, *CD34 and DOG-1*) and new novel markers (*PDGFRa* and *PKCθ*) were demonstrated using correlation formula. *Results*: There is a significant association between *c-KIT* with all the clinicopathological parameters(p=0.000). The co-expression of existing panel showed that 26 cases were positive for *c-KIT+/CD34+/DOG-1+*, followed by *c-KIT+/DOG-1+*(3 cases) and *c-KIT+* only (1 case). As for novel markers, 25 cases were positive for *PDGFRa+/PKCθ+*, followed by *PKCθ+*(3 cases) and *PDGFRa+*(2 cases). No significant correlation was found between the co-expression of the existing panel and new novel markers(p=0.631). *Discussion*: *c-KIT* immunohistochemical stain shows statistically significant association with all the clinicopathological parameters which further supports the usefulness of this stain to establish the diagnosis. This study also shows that *PDGFRa* and *PKCθ*immunostaining are useful markers, but may only be used as an addition to the existing panel. Multicentre studies are recommended for a more valid and reliable findings.

AR04 Expression of CCL2 in invasive breast carcinoma and its correlation with clinicopathological parameters

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Background: Chemokine (CC-motif) ligand 2 (CCL2) also known as Monocyte Chemoattractant 1 (MCP1) is a chemokine ligand, has been associated with aggressive behaviour in papillary thyroid carcinoma and prostate cancer, however, imprecise in breast carcinoma. The present study was performed to determine the CCL2 expression in invasive breast carcinoma and its correlation with clinicopathological outcomes. *Method:* We analysed CCL2 expression in 155 cases of invasive breast carcinoma using tissue microarray blocks (n = 141) and full histological sections (n = 14) for smaller tumours. The staining intensity was interpreted as 0 (negative), 1+ (weak), 2+ (moderate), and 3+ (strong) with percentage of positive cells documented. High immunoexpression defined as moderate to strong staining in ≥25% of cells while weak or staining in <25% of cells regarded as low immunoexpression and subsequently correlated with clinicopathological characteristics. *Results:* The mean age of patients with breast carcinoma is 56 years, with highest incidence in Malays (57.8%), followed by Chinese (27.9%), Indians (11.0%) and other ethnic groups (3.2%). CCL2 was expressed in 34% of breast carcinoma cases (n=53/155) with 1% (n =2/53) exhibiting high expression. Interestingly, low CCL2 immunoexpression were found significantly associated with higher nuclear grade (p<0.05). However, no significant relationship between CCL2 immunoexpression with other poorer prognostic indicators such as higher stage (larger tumour size, nodal and distance metastasis) and lymphovascular invasion. *Conclusion***:** CCL2 might be a potential biomarker to predict good prognosisin patients with invasive breast carcinoma. However, further studies with larger sample size are needed to validate its significance.

AR05 High risk-HPV DNA test and association with cyto-histopathological finding of cervical neoplasia: An audit study

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Introduction: Cervical intraepithelial neoplasia (CIN) is associated with high-risk human papilloma virus (HR-HPV) infection. Pap smear is an acceptable method for CIN screening with high sensitivity and efficacy combined with HPV DNA testing. This study aims to determine the prevalence of HR-HPV DNA in Hospital CanselorTuankuMukriz (HCTM) and its association with cervical cytology and biopsy findings. *Materials and methods*: All patients tested for HR-HPV DNA from 2005 until 2020 are selected. The corresponding cervical cytology and biopsy are retrieved. The association between HR-HPV DNA with cervical cytology and biopsy is calculated and analysed. *Results*: There are 1025 patients tested for HR-HPV DNA within the study period with mean age of 43 years old. The prevalence of positive HR-HPV DNA is 48.29% (n=495). The prevalence of cervical cytology categorised as low-grade squamous intraepithelial lesion (LSIL) and above among total patients is 21.07% (216/1025). Of these, 84.72% (183/216) had biopsy done and most of them (92.35%, 169/183) are histologically positive for CIN. The prevalence of CIN-positive in our population is 16.49% (169/1025), while CIN-negative is 1.37% (14/1025). There is significant association between HR-HPV DNA with CIN detected by cytology (p<0.00001) and histopathology (p<0.00001). The sensitivity and specificity of HR-HPV DNA as a screening tool is 85.99% and 58.90%, comparable to cervical cytology (sensitivity 85.31%; specificity 63.20%). *Conclusion*: HR-HPV DNA alone as a first line screening tool for CIN is comparably effective as cytology screening. Women with positive HR-HPV DNA must undergo proper follow-up for early detection of any pre-cancerous lesion.

AR06 Evaluation of total renal sinus sampling on the staging of renal cell carcinoma

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Introduction: Based on the understanding that the sinus vessels are the main pathway to metastasis, pathological staging of renal cell carcinoma includes microscopic renal sinus invasion (MRSI) as a criterion for upstaging of tumour. This study aims to determine the benefit of complete microscopic examination of the renal sinus fat, compared to a standard of three representative sections from the tumour-renal sinus interface (TSI). *Materials and methods*: A total of 20 radical nephrectomy specimens with no macroscopic sinus invasion were prospectively examined. Three initial sections of the most advanced TSI were initially evaluated as per standard protocol. The remaining TSI and non-TSI tissue were then entirely submitted for microscopic examination. *Result*:18 specimens had unifocal tumours while multifocal tumours were seen in two specimens. 86% were clear cell renal cell carcinomas (CCRCC) while the remaining were papillary renal cell carcinomas (PRCC). MRSI was identified in 4 out of 20 specimens, 3 of which had MRSI detected within the initial threeTSI sections. In one case with the largest CCRCC and the largest number of TSI sections taken, MRSI was detected in the further TSI sections, but this was not statistically significant (P=0.68). No MRSI was detected in non-TSI tissue. *Discussion*: This data supportsthe current grossing recommendations of at least three sections of TSI in cases with no gross sinus involvement where a significant number of cases with MRSI were detected. Large tumours with a wide TSI may need more extensive sampling for better assessment.

AR07 Prognostic value of microRNAs involved in immune evasion in breast cancer

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Introduction: MicroRNAs (miRNAs) are a class of non-coding RNAs with an average 22 nucleotides in length. They play important roles in regulating gene expression, thus are involved in variety of biological processes. Recently, involvement of miRNAs in immune evasion as an epigenetic mechanism has been revealed. This study aims to explore the prognostic roles of miRNAs involved in immune evasion in breast cancer. *Materials and Methods*: miRNA expression data and relevant clinic-pathological data were obtained from The Cancer Genome Atlas Breast Invasive Carcinoma (TCGA-BRCA) cohort and divided into training and validation sets. A list of miRNAs involved in immune evasion was curated from literature and screened for their prognostic value via univariate Cox proportional hazards regression analysis in the training set. The Lasso Cox regression model was applied to miRNAs with a p value <0.15 to establish a risk score based on the prognostic miRNA-based model. The prognostic value of the miRNAs was ascertained based on the risk score first in the training set and validated in the validation set. *Results*: Thirteen (hsa-mir-193a, hsa-mir-340, hsa-mir-3127, hsa-mir-1247, hsa-mir-148b, hsa-mir-146a, hsa-mir-1246, hsa-mir-34a, hsa-mir-24-2, hsa-mir-9-2, hsa-mir-29c, hsa-mir-195, hsa-mir-181d) out of 16 candidate miRNAs from the univariate analysis are retained in the Lasso Cox regression model. The thirteen-miRNAs-based risk score carries prognostic significance in distinguishing high and low risk patients and remains significant after adjusting for pertinent clinicopathological parameters. *Conclusions:* A gene signature based on 13 miRNAs involved in immune evasion acts an independent prognostic biomarker for breast cancer.

AR08 Identification of double-expressers (DE) lymphomas and their significance: A single centre experience

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Introduction: Diffuse large B cell lymphoma (DLBCL) is a heterogenous disease whereby some show co-expression of c-MYC and BCL2, known as double expressers (DE) lymphoma. DE lymphoma has an aggressive clinical course and poor outcome in comparison to non-DE patients. We investigated the association between DE with their prognostic parameters and determined the overall survival rate of DE compared non-DE patients. *Materials and methods:* We conducted a retrospective study involving 66 formalin-fixed paraffin-embedded DLBCL cases which were subjected for c-MYC and BCL2 immunohistochemical staining. *Results***:** Out of 66 cases, 25 (37.9%) cases showed c-MYC and BCL2 co-expression. Most of the cases were seen in patients age ≥ 60 years (68.0%). Male and female distributions were almost equal. DE lymphoma was significantly associated with ABC subtype in comparison to GCB subtype (p= 0.026). Median survival time for DE was 29 months and non-DE was 34 months. However, log rank analysis showed no significant difference in the overall survival rate of DE and non-DE patients (p=0.401). *Conclusion:* This study showed significant association between DE lymphoma and ABC subtype. Identification of DE lymphoma with ABC subtype may guide the clinicians in identifying patients with poorer outcome hence more aggressive treatment may be offered to this group.

AR09 Clinicopathologic features of endometrioid carcinoma in Hospital Queen Elizabeth, Kota Kinabalu, Sabah

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Introduction: Endometrioid carcinoma is the 6th most common cancer in women worldwide. In Malaysia, it is estimated 6.1% of cancer cases involving women. In Sabah population, endometrial carcinoma is one of the most common cancer with 3.1 incidence per 100,000 population. This study aims to learn about the clinicopathologic features of endometrioid carcinoma in Sabah population. *Materials and methods*: This is a cross sectional study carried out over a period of 5 years (January 2015 until December 2020) on all patients who had surgical resection for endometrioid carcinoma. The clinicopathologic data of the patient including age, tumour stage, grade and the histologic data are also collected and analysed using SPSS version 26. *Result:* There are a total of 170 cases collected of endometrioid carcinoma who had of hysterectomy specimens were included for the present study. The clinicopathologic data shows 58.2% of endometrioid carcinoma cases in Sabah population occur in female more than 50 years old and the remaining 41.7% are less than 50 years old. 112 cases (65.8%) cases are involving native Sabahan, which Bajau is on top of the list, followed by Dusun. Patients are presented with FIGO stage I (66.4%), stage II (8.2%), stage III (22.3%) and stage IV (2.9%). 155 cases (91.2%) are low grade, and 15 cases (8.8%) are high grade. Myoinvasion more than 50% are seen in 76 cases (44.7%). Lymphovascular invasion seen in 45 cases (26.5%). *Conclusion*: Endometrioid carcinoma are seen mainly in more than 50 years old age group and most of them presented in FIGO stage I and low-grade tumour.

AR10 Correlation of human epidermal growth factor receptor2 expression with clinicopathological characteristics in colorectal cancer

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Introduction: Over expression of human epidermal growth factor receptor 2 (HER2) is an established prognostic factor and therapeutic target in breast and gastric cancers. However, the role of HER2 as a biomarker for prognosis in colorectal cancer (CRC) remains uncertain. Therefore, we aimed to evaluate the HER2 expression status in our CRC cases and assess its association with the established prognostic and predictive clinicopathological parameters including lymphovascular invasion, lymph node metastasis, tumour grades and pathologic tumour stage (pT). *Material and methods*: 129 CRC cases diagnosed from 1st January 2017 to 31st December 2018, were enrolled into this study. HER2 protein expression and gene amplification were examined using immunohistochemistry (IHC) and fluorescent in situ hybridization (FISH) analysis, respectively. *Result*: According to HERACLES diagnostic criteria, 4 cases (3.1%) were identified as HER2 gene amplified, and 5 cases (3.9%) were scored as positive for HER2 protein expression (3+), 9 cases (7.0%) were equivocal (2+) and 115 cases (89.1%) were HER2 negative (0/1+). The concordance rate between IHC and FISH analyses was 80%. There was a statistically significant relationship between HER2 protein expression and pT of CRC cases ($P < 0.05$). No association between HER2 protein expression with lymphovascular invasion, lymph node metastasis and tumour grades. *Discussion*: The role of HER2 as a prognostic factor in CRC is still controversial. Assessment of the potential prognostic effect of HER2 over expression in CRC is hindered by the low incidence of these alterations. *Conclusion*: Our findings indicate that HER2 over expression occurs in a small percentage of CRC cases and may benefit with HER2 targeted therapy.

AR11 Prognostic significance of cyclooxygenase-2 in colorectal adenocarcinoma and its clinicopathological relationship

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Introduction: A new biomarker for colorectal cancer (CRC) detection is imperative and cyclooxygenase-2 (COX-2) has the potential to be used as the new candidate. The role of COX-2 in colorectal carcinogenesis is still debatable. Hence, this study aims to investigate the prognostic role of COX-2 in colorectal carcinogenesis and in the tumour microenvironment (TME), as well as its relationship with the clinicopathological features. *Materials and Methods:* Tissue samples of CRC were collected and retrospectively analysed from 215 patients who underwent surgery for CRC in the Pathology Department, Hospital Pulau Pinang from January 2014 to December 2018. Immunohistochemical staining was performed to assess COX-2 expression in the tumour and stromal cells. The prognostic significance of COX-2 expression with the clinicopathological features was statistically evaluated. *Result:* High expression of COX-2 was observed in the cytoplasmic of epithelial cells (66%), whilst low expression was seen in the stromal cells (5.1%) of colorectal adenocarcinoma. The COX-2 expression in the epithelial cells was significantly associated with the degree of differentiation ($p = 0.030$), histological type ($p = 0.049$), depth of invasion ($p = 0.029$), nodal metastasis ($p = 0.015$), AstlerColler classification ($p = 0.007$) and lymphovascular invasion ($p = 0.005$). No significant associations were found between COX-2 stromal expression and the clinicopathological features. In the TME, COX-2 expression was observed mainly in the inflammatory cells, with weaker expression seen in the fibroblasts and vascular endothelial cells. *Conclusion:* COX-2 expression is significantly associated with advanced features of CRC and has the potential as a prognostic biomarker for CRC detection.

AR12 From Milan to Selayang: A new approach to salivary gland cytology

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Introduction: Fine-needle aspiration is a safe, rapid, and efficient diagnostic test in salivary gland cytology. Challenges arise due to the overlapping morphological features present among some of the neoplasms. The MILAN reporting system was created to provide a standardized categorization of salivary gland cytology, thus improving communication with the clinicians for optimal patient management. This study aims to reclassify the salivary gland cytology according to MILAN classification and calculate the risk of malignancy. *Method*: Clinical information, FNAC slides, and their corresponding HPE diagnosis were retrieved. All the cytology slides were re-examined and classified into the MILAN reporting system as follows: Category 1: Non-diagnostic (ND); Category 2: Non-neoplastic (NN); Category 3: Atypia of undetermined significance (AUS); Category 4A: Neoplasm: benign (NB), Category 4B: Neoplasm: salivary gland neoplasm of uncertain malignant potential (SUMP); Category 5: suspicious of malignancy (SM); and Category 6: Malignant (M). *Results:* A total of 71 cases were assessed and grouped based on the MILAN categories. The results were as follows: ND (16.9%), NN (16.9%), AUS (7%), NB (32.4%), SUMP (16.9%), SM (8.5%), and M (1.4%). The ROM for each category were 16.6%, 25%, 20%, 0%, 25%, 100% and 100%. *Conclusion***:** Overall, the study demonstrated diagnostic sensitivity, specificity, positive predictive value, and negative predictive value of 62.50%, 88.33%, 52.63%, and 88.2%, respectively, with p <0.001 in each MILAN category.

AR13 Diagnostic accuracy of fine needle aspiration cytology of thyroid in Hospital Sultanah Nur Zahirah, Kuala Terengganu

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Introduction: Recently, fine needle aspiration (FNA) of the thyroid have been an initial screening tool in the preoperative evaluation of thyroid lesions. Beforehand, the reporting pathologists and clinicians worldwide had their diagnostic cytology interpretation until The Bethesda System for Reporting Thyroid Cytopathology (TBSRTC) in 2008 being introduced. The TBSRTC had proposed 6 categories in an attempt to standardize cytology reporting of the thyroid among the pathologist as well as easier guidance for the clinician to decide mode of intervention further. The purpose of the research to study the histopathological correlation with Fine Needle Aspiration (FNA) of thyroid lesions in Hospital Sultanah Nur Zahirah, Kuala Terengganu. *Materials and methods*: This is a retrospective cross-sectional study conducted at the Department of Pathology, Hospital Sultanah Nur Zahirah (HSNZ), Kuala Terengganu from January 2017 to December 2019. It is based on collecting data from the registered computerized database of Laboratory Information System (LIS) and Hospital Information System (HIS) in the Pathology Department, HSNZ. *Results and discussion*: A total of 389 cases of thyroid lesions had come for FNA. Of these, 162 cases had subsequent surgical resection and fulfilled the criteria were selected. Cytohistopathological correlation was carried out for these cases. The study showed a diagnostic accuracy of 85.8% with sensitivity and specificity rates of 66.7% and 96.2%, respectively. The positive predictive value is 90.5%, and the negative predictive value is 84.2%. *Conclusion*: Fine needle aspiration (FNA) has progressed as an accurate diagnostic tool for screening those with thyroid lesions, and obviously decreased the need for unnecessary surgery.

AR14 Primary ovarian tumour: 5-year review

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Introduction: Ovarian tumours have diverse histological types. They have a spectrum of clinical presentations and often misdiagnosed preoperatively. Most are benign, affecting female of variable age. Ovarian cancer ranked fourth in Malaysian female. We analysed the histological subtypes of ovarian tumour diagnosed in Hospital UniversitiSains Malaysia. *Material and methods:* A retrospective study carried out at Hospital USM over 5 years from the year 2016 until 2020. The clinicpathology parameters included were the histopathology type, patients' age, primary symptoms and serum CA-125. *Result:* Amongst 370 cases of ovarian tumour, 78.9% were benign, 5.4% were borderline and 15.7% were malignant. The median age of presentations was 36, 38, 53 years respectively. The histological phenotypes were epithelial (50.3%), germ cell (43.8%), sex-cord stromal (5.7%) and others (0.3%). Ovarian cancers were frequently diagnosed in women of sixth decade. 56.9% patients presented at an early stage (FIGO I), with complaints of abdominal mass (29%) and abdominal distension (20.7%). There was a significant association between elevated serum CA-125 and ovarian cancer (p = < 0.00001). *Discussion:* The results from the current study were concordant with the those reported in literature. *Conclusion:* Epithelial tumour is the most observed in the reproductive age group. The increased level of serum CA-125 is an indicator of malignancy. Our data provides the prevalence of ovarian tumour in our hospital, which can contribute to the national data of the ovarian tumour.

AR15 A case series of chordoma

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Introduction: Chordoma contributes 50% as a primary tumour of the sacrum. Although it is rare, chordoma is a low-grade neoplasm with a locally aggressive behaviour. A thorough clinical, radiological and histopathological investigations are required to establish its diagnosis. This is a case series of chordoma and its clinicopathology diagnosed in our centre. *Material and methods:* Using the keyword 'chordoma', the data was retrieved from the Laboratory Information System of Department of Pathology, Hospital UniversitiSains Malaysia, between the year 2013 to May 2021. The parameters included were the clinical presentations, histopathological diagnosis (include immunohistochemistry), age, and ethnicity. *Results:* A total of 23 chordoma cases was found, located in sacrum 91.3%, gluteal and clivus 4.35%, respectively. From these, 82.6%was new and 8.7% recurrent cases, which include 11 resected cases. The median age for chordoma was 51 years, and male was predominant (73.3%). 80% was of Malay ethnicity. The clinical presentations include back pain with mass, and neurological symptoms. Gross features of resected specimen showed variegated, myxoid, greyish and haemorrhagic appearance. The main microscopic features described were physalliphorous cells. 11 cases required immunohistochemical stains. *Discussion:* Chordoma is the commonest primary sacral neoplasm after metastatic carcinoma, with common presentations include back pain with mass, and neurological symptoms. The gold standard in diagnosing chordoma is by histopathological examination and brachyury immunohistochemistry positive expression. *Conclusion:* This study provides a data regarding incidence and clinical presentations of chordoma in Hospital USM Kelantan population. Close follow-up and additional studies are required to further understand the nature of this rare, distinctive neoplasm.

AR16 Colorectal cancer in a tertiary care hospital: A clinicopathological pattern

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Introduction: Colorectal cancer (CRC) is the third most common cancer and the second leading cause of death worldwide, with 10.2% new cases and 9.2% cancer deaths in 2018. In Malaysia, CRC is the second most common cancer, comprising 13.2% of all cancer. The majority of patients were detected at a late stage. This study aims to investigate the recent trends and clinicopathological patterns in CRC. *Materials and methods*: This was a cross-sectional study involving 194 patients who have undergone primary colon resection surgery with histopathology diagnosis of CRC from January 2017 until December 2019 in Hospital SultanahBahiyah, Kedah. The study data were collected from the electronic hospital information system (e-his) and analysed using SPSS version 26. *Results and discussion*: CRC cases showed increasing trends from 2017 to 2019 (61, 57 & 76). The mean age for CRC was 63.9 ± 11.8 years. Malays (67%) were the predominant group, followed by Chinese (26.8%), Indians (3.1%), and others (3.1%). The total male to female ratio is 1.13:1. Half of the patients (53.6%) have underlying hypertension, and 36.6% have diabetes mellitus type 2. The proportion of the young-onset CRC was 9.3%. Most of the tumours (90.2%) showed low-grade differentiation, and up to 9.8% of the tumour was high-grade. About 47.9% show positive nodal metastasis. A majority (82%) of the patients were diagnosed with advanced-stage and had left-sided tumours (71.6%). *Conclusion*: Most CRC cases were still diagnosed at the advanced stages and demanded further research on this trend's factors. Early detection and treatment are essential to improve survival.

AR17 A review of the Paris System of reporting urine cytology

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Introduction: The Paris System (TPS) was published in 2016 primarily to create a universally standardized reporting system. In addition, in comparison to other lesions, the detection of High Grade Urothelial Carcinoma (HGUC) was given priority in view of its aggressive nature. The purpose of this study is to analyze the performance of TPS in classifying urothelial neoplasms. *Materials and Methods:*10 years of retrospective study involving all consecutive urine smears with available histological correlation within a year is included. All preserved urine slides were retrieved, reviewed and re-classified according to TPS system by two investigators and compared to the histology reports. Statistical analysis was done using IBM SPSS version 23.0 software. *Results:* Among the 199 urine smears examined, TPS reported 43 (21.6%) as HGUC, 33 (17.6%) as suspicious of HGUC (SHGUC), 22 (11.1%) as atypical urothelial carcinoma (AUC) and a smaller proportion of 7 (3.5%) smears as low grade urothelial neoplasm (LGUN). *Discussion:* Overall, there is high agreement between the Paris system of reporting urine cytology and histopathological examination in detecting high grade urothelial carcinoma which achieved sensitivity and specificity of 70.8% and 96.8%, respectively with a positive predictive value (PPV) of 97.7%. *Conclusion:* Our study shows that Paris system of reporting urine cytology has good correlation, sensitivity and specificity with the histopathological results, especially in the detection of HGUC. Thus, for patients suspected of urothelial carcinoma, TPS system will be an excellent surveillance tool.

CASE REPORT

CR01 Testicular germ cell tumour presenting as lung metastases with histological discordance between primary and metastatic tumour: A case report

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Introduction: Testicular germ cell tumour (GCT) account for only 1 % of all male cancers worldwide with the most prevalence age between 15 to 34 years old. The testicular enlargement maybe subtle and the patient can present with multiple metastases when the time of diagnosis was made. *Case report:* We report here on a case of testicular germ cell tumour with multiple lung and liver metastases. The lung biopsy showed the tumour are consist of seminoma and embryonal carcinoma. However, mainly mature teratomatous component detected in the postchemotherapy (BEP) orchidectomy specimen. Metastatic to brain occurred months after the surgery. Stem cell transplant was planned. *Discussion:* Metastasis is common in testicular germ cell tumour, and usually involved lung, liver and brain. The histology composition discordance between primary and metastatic tumour are also recorded. This may be caused by the maturation of the primary germ cell type into another cell. In our case, discordance of histology component between primary and metastatic site is likely. However, the foci of siderophages, intratubular coarse calcification and lymphoplasmacytic cells may represent the regressed germ cell component of seminoma and embryonal carcinoma. In addition, pre or postpubertal teratoma was not able to be concluded although the metastatic nature of the tumour may link to the later. *Conclusion:* In conclusion, metastatic GCTs in the lung may demonstrate different histologic composition from their corresponding primary testicular GCTs. Evaluation of the full picture of tumour in first biopsy is however limited due to sample size.

CR02 Abdominal actinomyces infection simulating malignant neoplasm: A case report

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Introduction: Actinomycosis is a rare chronic infection caused by filamentous anaerobic bacteria of the genus Actinomyces. Abdominal infection mostly involved the ileo-caecal area and can mimick malignant tumour in clinical and radiological examination. *Case report:* An 82-year-old woman presented with lower abdominal pain for 1 month with palpable abdominal mass. CT TAP showed an infiltrating, heterogenous left lateral abdominal wall mass which might represented primary muscle tumour or metastatic deposit, measuring 5.8x 5.3x2.5 cm. Biopsy was done and showed spindle cells proliferation with inflammation likely caused by infective origin. Laparoscopic converted open excision of left lateral abdominal wall revealed a mass infiltrating the transverse colon and omentum. We received a mass, covered with greenish suppurative exudate and attached to a segment of colon. Histology examination showed an inflammatory and fibrotic mass arising from the outside of the bowel wall with intact andunivolved colon mucosa. There were scattered actinomyces colonies and microabscess seen in the pericolonic tissue. *Discussion:* Actinomyces secrete proteolytic enzymes and therefore have the tendency to infiltrate the adjacent tissue. Multiorgan involvement is also possible. Culture is difficult because of the anarobic character and the slow growth of actinomyces. Despite CT scan, FNAC and culture, the diagnosis is usually ascertained after histologic examination. *Conclusion:* This case is presented for its rarity and diagnostic dilemma it presented, be it clinically or by the small biopsy. In conclusion, abdominal actinomycosis is to be considered in the differential diagnosis of an abdominal mass.

CR03 Oncocytic carcinoma of the parotid gland

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Introduction: Oncocytic neoplasms of the salivary gland are uncommon, with a wide array of differential diagnosis. The differentials range from benign to malignant, with differing treatment and prognosis. The neoplasms are difficult to interpret on cytology alone, thus histopathological examination is important to come to satisfactory diagnosis. *Case Report*: 76 years old gentleman with underlying diabetes mellitus, hypertension and dyslipidemia, presented with gradually increasing, painful infraauricular swelling for 6 months. CT neck showed right parotid mass with cervical lymphadenopathy. Fine needle aspiration cytology was reported as oncocytoma. The patient underwent total parotidectomy with right neck dissection. Macroscopic examination of the parotidectomy specimen showed irregular solid whitish tumour measuring up to 35mm. Microscopic examination showed infiltrative, partly encapsulated tumour composed of sheets of oncocytic cells. Perineural and capsular infiltration seen, with necrosis present. Mucin stain was negative, with high Ki-67 proliferative index. Right cervical lymph node showed metastatic deposit. *Discussion*: The differential diagnosis of oncocytic neoplasms of the salivary gland includes oncocytosis, oncocytoma

and oncocytic carcinoma, as well as oncocytic transformation present within other neoplasms. Oncocytic carcinoma is characterised by capsular, perineural or vascular invasion, or evidence of metastasis. Thus, it is difficult to diagnose solely on cytopathological examination, especially in presence of bland cytomorphology. Oncocytic carcinoma is a high-grade tumour with indeterminate prognosis. Adequate surgical resection with neck dissection is the main treatment. *Conclusion*: We present a rare case of oncocytic carcinoma present within the parotid gland, with pathologic features. The differential diagnosis is wide, and ultimately adequate tissue examination is key to diagnosis.

CR04 Case report of adenosquamous carcinoma with florid papillomatosis of the breast

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Introduction: Low-grade adenosquamous carcinoma is a rare triple-negative subtype of metaplastic breast carcinoma. It is frequently associated with benign lesions. Intraductal papilloma meanwhile is a benign lesion with broad differentials, which can be difficult to interpret on fragmented specimens. *Case Report*: 69 years old lady presented withsuspected unilateral breast abscess. No preoperative imaging done. She underwent local incision and drainage. Macroscopically, whitish piecemeal tissue fragments were received. Histopathological examination reported as adenoid cystic carcinoma. Subsequent mastectomy specimen showed intraductal papilloma with usual ductal hyperplasia. Second opinion reporting was sought for both specimens and final impression was adenosquamous carcinoma with florid papillomatosis. *Discussion:* Low-grade adenosquamous carcinoma consists of p63 positive glands and squamous cell nests, with spindle cell component. This malignancy follows an indolent course and has good prognosis. Upon review, misdiagnosis of adenoid cystic carcinoma in the piecemeal resection is attributable to the florid papillomatous areas. Fragmented papillary lesions render difficulties in architectural assessment as well as evaluation of adjacent parenchyma for invasive malignancy. The lesions are generally managed by excision. *Conclusion*: We present a rare case of adenosquamous carcinoma of the breast, with florid papillomatosis. Diagnosis of carcinoma should be rendered with caution in a piecemeal specimen.

CR05 A rare case of haemorrhagic bullous dermatosis

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Introduction: Hemorrhagic bullous dermatosis is a rare generalized cutaneous eruption with poorly understood pathogenesis, described in association with heparin therapy. Characteristic lesions are painless hemorrhagic papules and blisters on uninflamed skin appear within 5 to 21 days of the initiation of therapy. The lesions usually resolve after discontinuation of anticoagulation drugs. We present a case of hemorrhagic bullous dermatosis in a patient receiving low molecular weight heparin (LMWH) followed by warfarin. *Case report:* A 23-year- old male presents with a medical history of Systemic Lupus Erythematosus (SLE) was started on LMWH and shortly switched to warfarin for acute digital ischemia. 11 days after the initiation of the treatment, he has developed hemorrhagic blisters erupting over his scalp, mouth, neck, trunk and limbs. Coagulation profiles showed severe prolonged APTT and blood count showed marked thrombocytopenia. Histopathology revealed subcorneal bullous filled with red blood cells without evidence of epidermal necrosis, vasculitis, thrombosis or significant inflammatory infiltrates. His skin lesion resolved spontaneously after discontinuation of warfarin. *Discussion:* Heparin iscommonly known to cause injection site reaction such as hematoma, ecchymoses and heparin induced thrombocytopenia leading to skin necrosis, making hemorrhagic bullous dermatosis is unusual entity. Our patient's cutaneous reaction maybe a result of over anticoagulation as he received 2 anticoagulation drugs. *Conclusion:* A high index of clinical suspicion, thorough drug history and histopathological examination will lead to proper treatment of this rarely seen condition.

CR06 Orbital Rosai-Dorfman disease presenting as extraconal mass: A case report

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Introduction: Rosai-Dorfman disease (RDD) is a rare histiocytic disorder characterised by proliferation of histiocytes with emperipolesis. Both nodal and extranodal RDD have been reported. Ophthalmic manifestations occur in 11% of RDD cases. We hereby present a case of orbital RDD. *Case report*: An 11-year-old Malay girl was presented with painless and progressive growing lower left eye swelling for two months. CT scan showed left orbital solid extraconal mass with bone erosion. She was referred to tertiary centre for tumour excision. Intraoperative examination showed a 3cm vascular tumour. Histologically, the tumour was composed of fibrotic tissue with abundant histiocytes admixed with inflammatory cells. The histiocytes showed round nuclei and abundant vacuolated cytoplasm. Emperipolesiswasidentified. These histiocytes were immunoreactive for S100 protein, CD68, and CD163 stains. RDD was confirmed. Further post-operative assessment was incomplete as she has lost follow-

up. *Discussion*: RDD is a heterogenous entity that can occur as isolated disorder, or in association with autoimmune, hereditary and malignant diseases. Opthalmic manifestations include solitary extraconal or intraconal masses, association with concurrent lymph nodes lesions, or as a component in systemic/multiorgan disease. Isolated ophthalmic involvement is exceedingly rare. Radiography is crucial in investigation of potential systemic sites of involvement. Surgical resection is generally the first line therapy for orbital RDD. Other treatment methods include corticosteroids, chemotherapy and radiotherapy. *Conclusion*: RDD should be considered in the differential diagnosis of a young patient who presents with orbital mass. When encountering orbital RDD, further workup to exclude the possibility of systemic involvement is indicated.

CR07 A case report of rare malignant adenomyoepithelioma of breast

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Introduction: Adenomyoepithelioma (AME) of breast is uncommon, moreover its malignant counterpart, malignant adenomyoepithelioma (AME-M). These tumours mostly occur in elderly women. *Case report*: A 44-year-old lady presented with a 7-month history of a painful left breast lump and recently increases in size. Ultrasonographic examination shows BI-RADS category 3 and lumpectomy was done. The circumscribed lesion is rubbery, about 3.5 cm in diameter with yellowish cut surface. Microscopically, the lesion consists of foci resemble AME with adjacent fibrocystic change. Malignant features are depicted by enlarged and pleomorphic epithelial and myoepithelial cells with frequent mitoses (23/10HPFs) within the foci. No infiltrative border, necrosis or lymphovascular invasion seen. P63 and CK5/6 highlighted the myoepithelial components. Ki67 is about 70%. Tumour cells positive for ER and PR, negative for HER2. D*iscussion:* AME-M is uncommon and presents with a wide spectrum of features. Malignancy can involve proliferating epithelial, myoepithelial cells or both components. Malignancy may occur within foci of AME. Malignant changes include cytological atypia, frequent mitoses and necrosis. Some papers suggested size ≥16 mm and multifocality point to malignancy. Wide local excision or simple mastectomy are acceptable definitive treatment. AME and AME-M can locally recur despite excision. Metastatic spread to the lung, thyroid and brain have been reported in AME-M. *Conclusion*: AME-M is rare. Gross features and imaging may not suggest malignancy at times. One should scrutinise a lesion resembles AME because malignancy may reveal by its cytological atypia and increased mitoses despite absence of necrosis. Possible recurrence after excision justifies follow-up.

CR08 Extrahepatic biliary tract neuroendocrine tumour: A case report of a rare entity

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Introduction: Although the gastrointestinal tract is a common site for neuroendocrine tumour (NET), it rarely occurs in the extrahepatic biliary tract. We report a rare case of NET in the biliary duct. *Case report*: The patient is a 48-year-old male with history of jaundice and pruritus. Radiological examination showed a hyper enhancing mass obstructing the common bile duct. The clinical diagnosis was cholangiocarcinoma and the patient underwent cholecystectomy and radical choledochectomy with hepatico-jejunostomy. Histopathological examination revealed low grade NET with clear resection margins. *Discussion and conclusion*: Due to its rarity, a preoperative diagnosis of bile duct NET is seldom made. Common clinical presentations include painless jaundice and pruritus. Surgical resection is the mainstay of treatment for biliary tract NET and has a potential for cure.

CR09 A mash-up of separate entities: Case report of a hybrid nerve sheath tumour

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Background: Hybrid nerve sheath tumours (HNSTs) are classified as benign tumours arising from peripheral nerve sheath cells. Most literature highlights a hybrid of only two Peripheral Nerve Sheath Tumours (PNSTs) components. Only a few reported cases involve a hybrid of all three components of PNSTs. *Case Report:* Here we present a case of a 33-year-old Malay lady, with left proximal middle finger soft tissue swelling for three months. Microscopy revealed a circumscribed lesion containing a hybrid of all three PNSTs components with each displaying its own typical immunohistochemistry pattern. The tumour was concluded as Hybrid Nerve Sheath Tumour. *Discussion:* This case signifies that despite what was previously thought as distinctly separate tumours, PNSTs might be more closely related than what was earlier believed. We also discuss whether HNSTs are indeed a distinct entity arising from a localized sporadic somatic change in the genetic microenvironment of the neural crest progenitor cells or whether HNSTs are part of the PNSTs spectrum arising from known tumour syndromes as a result of clonal genetic alteration. However, the debate still lingers as there are few reported cases of HNSTs arising in patients with tumour

syndromes such as NF1, NF2 and Schwannomatosis. Those associated with tumour syndromes are often multiple and carry a higher risk of recurrence and have potential for malignant transformation. *Conclusion:* Further genomic studies are needed to help understand the exact pathogenesis of these tumoursin order to develop precise targeted oncology treatments for patients suffering from this disease, particularly those affected by NF1 with recurrent MPNSTs.

CR10 Chronic lymphocytic leukaemia transformation to classic Hodgkin lymphoma: A rare variant of Richter Syndrome

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Introduction: Chronic lymphocytic leukaemia/ small lymphocytic lymphoma (CLL/SLL) is an indolent disease. Higher grade Richter transformation may occur in the natural history of CLL/SLL and it represent an aggressive evolution of this disease. *Case Report*: A 57-year-old gentleman, a known case of chronic lymphocytic leukaemia post treatment, presented to a private hospital with enlarged right cervical lymph node. A tru-cut biopsy of the right cervical lymph node was performed. The biopsy shows typical morphological features of CLL with areas of transformation to classic Hodgkin lymphoma. *Discussion:* Diffuse large B-cell lymphoma (DLBCL) is the most common Richter transformation occurring in 2-8% of CLL/SLL while CHL transformation is very rare (<1%). Richter transformation may arise in the early stage or after treatment of CLL/SLL. Persistent Epstein-Barr virus (EBV) infection in lymphocytes of CLL/SLL patients is postulated to lead to more aggressive disease and transformation to CHL. Common clonal origin may also be demonstrated in both type of lymphoma. The prognosis of transformed CHL is poorer than de novo CHL which require a different therapeutic strategy. *Conclusion:* Awareness and careful evaluation of lymph node biopsy is important to avoid missing a rare variant of high-grade lymphoma transformation.

CR11 Nodular lymphocyte-predominant Hodgkin lymphoma with T-cell/ Histiocytic-rich B cell lymphoma transformation: A case report

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Introduction: Nodular lymphocyte-predominant Hodgkin lymphoma (NLPHL) is a less frequent type of Hodgkin lymphoma with close relationship to non-Hodgkin B-cell lymphoma. Although it shows an indolent behaviour, higher grade transformation may occur in the course of disease, most frequently to diffuse large B-cell lymphoma (DLBCL) and much less commonly to T-cell/ Histiocytic-rich B cell lymphoma (TCRBL). *Case Report:* A 34-year-old man presented with painless right axillary lymph node enlargement measuring 9 cm in greatest dimension, which was progressively increasing in size for the past seven months associated with mediastinal mass and lytic lesion in the right humerus and acromion. There were no B symptoms, hepatosplenomegaly or lymphadenopathy at other area. Excision biopsy of the axillary lymph node revealed features consistent with NLPHL with areas of higher-grade transformation into TCRBL. *Discussion:* Albeit almost similar morphology and immunoprofile, NLPHL and TCRBL exhibit different clinical behaviour, with the latter shows aggressive disease course. Neoplastic lymphoid cells in both type of lymphomas strongly express B-cell markers and are dispersedly arranged however, the type of cells in the background and its morphological pattern are dissimilar. *Conclusion:* Recognizing the differentiating features between these two lymphomas are important for prognosis and therapeutic purposes. Possible high-grade transformation needs to be excluded in the case of rapid or progressive increase in lymph node swelling as shown in this case.

CR12 A rare case of colesional cutaneous talaromycosis (penicilliosis) and Kaposi sarcoma

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Introduction: HIV-infected patients are at high risk of multiple pathologies. Talaromycosis (formerly penicilliosis) infection and Kaposi sarcoma can present primarily as skin lesions or as part of a disseminated diseases. *Case report:* A 40-year-old male presented with non-productive cough for four months associated with constitutional symptoms. He had multiple purplish-red skin plaques distributed over his chest, back and extremities. Few punctate erosions were also noted on his forehead. Histopathological examination of the skin biopsy revealed colesional cutaneous talaromycosis and cutaneous Kaposi sarcoma. The Periodic acid-Schiff stain showed the characteristic transverse septum of *Talaromycesmarneffei*. The Kaposi sarcoma tumour cells were highlighted by CD31, CD34 and HHV-8 immunohistochemical stains. The patient blood culture grew *Talaromycesmarneffei*. *Discussion*: Cutaneous talaromycosis usually manifests as umbilicated papules. Histoplasmosis, cryptococcosis, and molluscum contagiosum infection are some of the other clinical differential diagnoses. In this case, the Kaposi sarcoma lesion was obscured

by the inflammatory cells surrounding the *Talaromycesmarneffei*. Prudent histopathological examination and judicious use of adjunct diagnostic test are essential for the diagnosis. We believe this is the first report of colesional cutaneous talaromycosis and Kaposi sarcoma. There were four reported cases of concurrent Kaposi sarcoma with systemic talaromycosis in English literature. Two out of the four reported cases died despite treatment. The accurate identification of colesional pathologies is critical for the patient management. *Conclusion*: This report adds to the growing knowledge of colesional cutaneous pathology caused by HIV-related immunodeficiency.

CR13 Intestinal obstruction secondary to malformation in a child with Mayer-Rokitansky-Küster-Hauser syndrome

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Introduction: Mayer-Rokitansky-Küster-Hauser (MRKH) syndrome is characterised by congenital Mullerian tract agenesis or hypoplasia, involving the uterus and upper part of the vagina, in females. *Case report:* A 4-year-old girl was declared dead on arrival to the hospital with a history of chronic constipation since birth. Postmortem examination showed bilateral Mullerian remnants attached to an abnormal fibrous tissue along the colon. The Mullerian remnants were hypoplastic and had characteristics of both the Fallopian tube and the endometrium. The abnormal fibrous tissue extended from the descending colon to the rectum and connected to a urinary bladder duplication cyst. This fibrous tissue formed into a constricted band around the rectum. The cause of death was intestinal obstruction secondary to the fibrotic band and urinary bladder duplication cyst. *Discussion*: Recent studies using pelvic MRI identified two types of abnormal fibrous structures in patients with MRKH syndrome. The first type was a fibrous band connecting bilateral Mullerian remnants, while the second type was a distinct rectovaginal septum located between the rectum and the urinary bladder. The abnormal fibrous tissue present in this case was similar to the fibrous band and distinct rectovaginal septum described in the previous studies. *Conclusion*: MRKH syndrome is a rare congenital disorder and the malformations rarely cause death. We described the features of abnormal fibrous tissue and urinary bladder duplication cyst in a patient with MRKH syndrome. We emphasize the importance of further studies to fully comprehend the role of the abnormal fibrous structures in MRKH syndrome in terms of intestinal symptoms.

CR14 Occult pulmonary cryptococcoma mimicking malignancy

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Introduction: Cryptococcosis is a potentially fatal fungal infection caused by *Cryptococcus neoformans* and *Cryptococcus gattii*. The disease mainly affects the lung and central nervous system. Although more common in immunocompromised patients, immunocompetent patients may present with occult mass lesions of the lungs and mediastinum, mimicking malignancy. *Case report*: We illustrate the case of a 51-year-old Chinese lady with no known medical illnesses, presenting in January 2021 with fever, headaches, forgetfulness and a 6 month history of weight loss preceding her current symptoms. The patient was treated for pneumonia. Chest imaging revealed a right anterior mediastinal mass abutting the right lung. CT brain revealed no abnormalities. The patient was referred to a thoracic surgeon and a differential diagnosis of thymoma/teratoma was arrived upon. An *en bloc* resection of the mass was performed. *Discussion*: Histopathological evaluation revealed budding yeasts with characteristic thick wall, confirmed as Cryptococcus sp. by Mucicarmine and Masson-Fontana stains. The patient was referred to a neurologist and MRI examination revealed hydrocephalus, and Cryptococcal antigen was detected in cerebrospinal fluid. *Conclusion*: This case emphasizes the fact that cryptococcosis is a mimic for neoplasia and underscores the importance of a proper clinical history and adequate diagnostic workup of mass lesions in the thorax.

CR15 A case report of placental mesenchymal dysplasia mimicking partial mole: Lessons learnt

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Introduction: Placental Mesenchymal Dysplasia (PMD) is a rare benign condition that mimics partial hydatidiform mole on clinical, ultrasound and gross pathological examination. Prenatal diagnosis is difficult and diagnosis is usually achieved by histological examination of the placenta. *Case report*: A 21-year-old Orang Asli, G2P1 at 19 weeks gestation referred for pregnancy with gestational trophoblastic disease. Ultrasound: single large low-lying placenta with multicystic areas and viable, structurally normal fetus. Karyotyping showed a chromosomally normal male fetus. Healthy baby boy was delivered at 34 weeks of gestation. Pathologic findings: A grossly bulky placenta with multiple grape-like vesicles which resemble molar pregnancy. There were multiple dilated chorionic plate vessels. Microscopic examination of the placenta showed abnormal large stem villi and central cistern formation with absence of trophoblastic proliferation, consistent with PMD. *Discussion*: As with this case,

PMD is often clinically mistaken for a molar pregnancy. Differential diagnosis includes partial molar pregnancy, complete molar pregnancy with co twin and chorangioma. It is important to distinguish PMD from its mimickers, particularly partial mole as the prognosis is different. *Conclusion*: PMD is a relatively rare entity that needs to be distinguished from molar pregnancy to avoid unnecessary termination of pregnancy. Placental pathologic examination is paramount important for definitive diagnosis with correlation with clinical, karyotyping study and ultrasound findings.

CR16 Salivary duct carcinoma: The first case reported in Hospital TuankuJaafar Seremban

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Introduction: Salivary duct carcinoma (SDC) is a rare and aggressive malignant salivary gland neoplasm. They can arise de novo or as the malignant component in carcinoma ex-pleomorphic adenoma. We present the first case on SDC reportedin our institution with the immunohistochemical characteristics of this tumour. *Case report:* A 64-year-old woman presented with pain and progressive swelling of the right parotid gland for more than a year associated with inaccurate radiological and cytological findings. On routine histopathology, the tumour revealed infiltrative tubular structures arranged in solid, cribriform, papillary pattern amidst desmoplastic fibrohyalinized stroma. The cells are pleomorphic with eosinophilic cytoplasm and comedo necrosis is almost invariably present. Mitotic activity is aberrant. Both perineural invasion and lymphovascular invasion is detected. Tumour cells are diffusely positive for cytokeratin7 and GATA3, p63 and cytokeratin5/6 less than 20% and 5%.C-Erb-B2 is diffusely overexpressed.ER, PR, DOG1, CD117 and TTF-1 are negative. Ki67 labelling index is 35%. *Discussion:* Salivary duct carcinoma predominantly occurs in the major salivary gland. This case presented a diagnostic challenge because of the rarity of SGC and limited cases have been reported in the literature. SDC shows a striking resemblance to ductal carcinoma of the breast posing a differential diagnostic challenge with metastatic breast carcinoma.SDCexhibits aggressive clinical behaviour, characterised by a high rate of regional nodes metastases and early distant metastasis.*Conclusion:* As the SDC is a rare and highly aggressive entity, early detection, accurate histopathological diagnosis including C-Erb-B2 immunohistochemistry for preparation of probable biotherapy are crucial in reducing adverse events and improving survival rate.

CR17 A rare case of uterine epithelioid leiomyosarcoma arising within leiomyoma in a post-menopausal woman

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Introduction: The incidences of both uterine epithelioid leiomyosarcoma and leiomyosarcoma arising within leiomyoma are considered rare. Thereby, the occurrence of epithelioid leiomyosarcoma arising from a leiomyoma is the rarest of the rare. *Case report:* We presented here in a case of epithelioid leiomyosarcoma arising within leiomyoma. The patient was a post-menopausal 61-year-old lady. She presented with a history of on-and-off postmenopausal bleeding. Initial work up by ultrasound showed multiple uterine fibroids, with a recent scan found progressive increase in the size of the largest fibroid. Therefore, abdominal hysterectomy and bilateral salphingooophorectomy were performed. Macroscopically, all of these fibroids were well circumscribed and displayedwhite to tan cut surface with a whorled trabeculae pattern. However, in the largest fibroid, despite itscircumscription, showed an area of variegated fleshy cut surface and necrosis. Microscopically, all the fibroidsshowed the classic features of leiomyoma except for the largest, which displayed the classic characteristic only at the periphery. We noticed an area that exhibited epithelioid leiomyosarcoma features within this largest fibroid. The area showed increase in cellularity, composed of round cell in eosinophilic cytoplasm with frequent mitotic figures (5-7/10HPF). Necrosis was also observed. The cell in this area showed diffuse positivity towards CKAE1/AE3, patchy positivity towards vimentin and ER and was negative for smooth muscle actin, desmin, caldesmon, CD10 and cyclin D1. *Discussion:* Leiomyoma almost never transformed to leiomyosarcoma. Only few reported cases of leiomyosarcoma arising from the leiomyoma. Extensive sampling is important when encountering large fibroid particularly in post-menopausal women. *Conclusion:* This case report highlights the significance in recognizing the possibilities of diagnosing uncommon subtype of leiomyosarcoma within leiomyoma.

CR18 Incidental collision tumours of the thyroid: A case report

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Introduction: A collision tumour of the thyroid is a term denoting two histologically distinct tumour types occurring at the same anatomic site. It is a rare clinical entity and must be differentiated from mixed or composite tumours as the management and prognosis differs. *Case report*: Here we report a case of unsuspecting total thyroidectomy in a 45-year-old female patient for multinodular goiter, which turned out to be a collision tumour of papillary and follicular carcinomas. Apart from distinct tumour morphologies, the diagnosis of these carcinomas weresupported by corresponding immunohistochemical markers. *Discussion*: Pathologists need to keep an eye out for collision tumours in the thyroid, considering the numerous morphological variants in

thyroid carcinomas and also more recent entities such as NIFTP (noninvasive follicular thyroid neoplasm with papillary nuclear features) and papillary microcarcinoma. *Conclusion:* Pathologists, radiologists, oncologists and surgeons should be aware of collision tumours as the treatment is complex due to the duality in pathology. It should be managed in a multidisciplinary setting as treatment is personalised.

CR19 Cutaneous fusariosis with fatal outcome in an immunocompromised patient: Key features

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Introduction: *Fusarium* species can cause cutaneous and disseminated infections in patients with haematological malignancies. Differentiating the less-common *Fusarium* species from the more common pathogens like *Aspergillus* and *Candida* may be challenging. We present a case of cutaneous and disseminated fusariosis with attention to the key clinical and tissue histologic features. *Case Report*: A 28-year-old female with underlying B-cell acute lymphoblastic lymphoma was in neutropenic phase after initiation of chemotherapy. She had persistent fever refractory to antibacterial and antifungal agents. She developed painful macules on bilateral lower limbs, upper limbs and face. Blood and skin culture confirmed *Fusarium* species infection. Skin biopsy shows presence of multiple septate fungal bodies and hyphae in the reticular dermis, subcutis and intravascularly. They have variable degree of branching and spores varying in shape, surrounded by lymphocytic and histiocytic infiltration. The patient succumbed 20 days following neutropenic sepsis. *Discussion*: Identification of *Fusarium*species in culture or human tissue are characterised by formation of hyaline, septate and 3-8um fungal hyphae. Key features are macroconidia with unicellular microconidia varying in shape and presence of 45- or 90-degree branching. *Fusarium* species tends to invade blood vessels in patients with haematological malignancies resulting in rapid dissemination. It is associated with cutaneous infection and positive blood culture, a phenomenon less seen in *Aspergillus* infection. Immunofluorescent or in-situ hybridization studies may identify *Fusarium* species in tissue sections. *Conclusion*: Combined clinical presentation and identification of non-*Aspergillus* hyalohyphomycosis such as *Fusarium* species on histologic sections may prove helpful to expedite correct and prompt treatment in high-risk patients.

CR20 Congenital NTRK-associated nasal tumour

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Introduction: NTRK-associated soft tissue tumours are an expanding category of lesions with characteristic morphological features. We present two unusual cases of a congenital NTRK-associated low grade myxoid soft tissue sarcoma arising within the head and neck of two children. *Case report:* Both tumours showed similar morphology with characteristic stromal keloidal collagen within a low grade myxoid spindled cell background. Each case was positive for PANTRK immunohistochemistry and SMA. In contrast to other described NTRK-rearranged sarcomas which have been recently described, immunohistochemistry for S100 and CD34 were negative in both cases. *Discussion:* The striking similarities in morphology, immunohistochemistry, localisation and patient age in these two cases support that these tumours may represent the same entity within the spectrum of the emerging category of NTRK-associated soft tissue tumours. *Conclusion:* A larger case series and further molecular studies are needed to assess whether these cases represent a novel pathologic entity.

CR21 Pseudotuberculous pyelonephritis in a 5-year-old boy

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Introduction: Pseudotuberculosis pyelonephritis is a rare entity and none of reported cases occur in children. Most of the cases were reported in the elderly and caused by recurrent urinary tract infection, nephrolithiasis, polycystic kidney disease, or ureteral stenosis with negative microbiological evidence of Mycobacterium tuberculosis. *Case report*: We describe a case of an unusual form of chronic pyelonephritis, mimicking tuberculosis on histopathological findings in a 5-year-old Malay boy. He presented with one-week high-grade fever, abdominal pain, difficulty in urination associated with passing cheesy-like sediment in urine. Before that, he had a history of frequent fever since three months old and never investigated for urinary tract infection. Renal imaging revealed chronic pyelonephritis complicated with perinephric abscess. He succumbs to left subcapsular nephrectomy because of persistent temperature spike and worsening urinalysis. Grossly the kidney exhibits irregular scared cortical surface with multiple yellowish nodules on the anterior surface. Microscopically shows confluent caseating granulomas with the background of chronic pyelonephritis. Neither acid-fast bacilli nor fungal demonstrated in urine culture or renal tissue. *Discussion*: Granulomatous pyelonephritis can be group into infectious and non-infectious aetiology. The diagnosis was made based on exclusion criteria using tissue special stain, culture, and molecular apart from histology morphology. *Conclusion*: We conclude

that the patient had pseudotuberculous pyelonephritis as a consequence of chronic pyelonephritis secondary to superimposition of urinary tract infection due to vesicoureteral reflux. This rare entity's awareness would enlighten the correct diagnosis and the proper treatment for the patient to avoid unnecessary anti-tuberculous treatment which may impose side effects.

CR22 T-cell rich angiomatoid polypoid pseudolymphoma (TRAPP): A rare and specific entity of cutaneous pseudolymphoma, first reported case in Malaysia

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Introduction: T-cell rich angiomatoid polypoid pseudolymphoma (TRAPP) is a distinctive form and a rare entity of T-cell cutaneous pseudolymphoma which characterised clinically by a solitary, small, polypoid angiomatous-like papule with a predilection for the head and trunk. There were only 18 reported cases thus far in the English Language literature. *Case report*: A 63-year-old gentlemen presented with a 2mm, slow growing non-ulcerated erythematous papule at nasal region for 6 months. There is no skin lesion elsewhere and no lymphadenopathy present. Histologically, the lesion is a well circumscribed polypoid intradermal nodular lesion with Grenz zone and epidermal collarette. The lesion is composed of predominantly small reactive lymphocytes mixed with variable amounts of histiocytes, plasma cells and eosinophils accompanied by prominent capillary-sized vascular channels. Immunohistochemical study shows predominance of CD3 over CD20 with CD4:CD8 ratio of 1:1 and scattered CD68 positive cells. There is no aberrant or loss of T-cell expression seen. *Discussion*: TRAPP is a recognized variant of cutaneous T-cell pseudolymphoma with a distinctive clinical presentation and histomorphologically mimic of acral pseudolymphomatous angiokeratoma of children (APACHE). However, the latter is most seen in children and predilection over the acral skin. The differential diagnosis of low-grade cutaneous lymphoma is excluded by presence of polymorphous infiltrates, prominent vascular channels, and absence of atypical lymphocytes. There is no aberrant or loss of T-cell expression seen in TRAPP. *Conclusion*: Awareness of this rare but distinctive entity is important to avoid over diagnosis of cutaneous T-cell lymphoma and judicious as well as unnecessary use of immunohistochemistry studies.

CR23 Extra-adrenal retroperitoneal paraganglioma: A unique presentation

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Introduction: Paragangliomas are non-epithelial neuroendocrine tumours, arising from the specialized primitive neural crest-derived paraganglion cells of the autonomic nervous system. Sympathetic retroperitoneal paraganglioma arising from extra-adrenal paraganglia is a relatively rare entity. *Case Report*: We present a case of 71-year-old Indian female who presented with backache of sudden onset. Computed tomography scan of the abdomen revealed a left upper quadrant enhancing mass representing retroperitoneal tumour. Patient underwent a tumour resection with omentectomy. Macroscopically, the tumour measured 75x65x60mm with brownish solid and cystic cut surface. Histologically, the tumour was well-circumscribed with typical 'zellballen' and diffuse growth pattern amidst a hyalinised and vascularized stroma. Immunohistochemical studies showed thetumour cells were diffusely immunoreactive to Chromogranin A and Synaptophysin. The sustentacular cells expressed S100 positivity. Histomorphology and immunohistochemistry confirmed the diagnosis of extra-adrenal retroperitoneal paraganglioma. *Discussion*: Extra-adrenal paraganglioma is derived either from the parasympatheticparaganglia (head and neck distribution) or sympatheticparaganglia (retroperitoneum, thorax and pelvis). Sympathetic retroperitoneal paraganglioma can develop at any age with an approximately equal sex distribution. Histologically, paraganglioma has similar features with pheochromocytoma. The tumour cells show organoid (Zellballen) arrangement with expression of neuroendocrine markers. SDH gene germline mutations are associated with some tumours. *Conclusion*: Extra-adrenal paragangliomas should be considered in the differential diagnosis of a retroperitoneal mass. As all paragangliomas show a propensity for metastasis, long term follow-up is recommended.

CR24 Synchronous of amniotic fluid embolism and myocarditis: An autopsy case report

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Introduction: Amniotic fluid embolism (AFE) is a rare but potentially life-threatening obstetric emergency. Maternal age more than 35 years, multiparity, caesarean section and fetal distress are among the associated risk factors for AFE. We present a case of a pregnant woman with myocarditis and amniotic fluid embolism as her cause of death. *Case Report:* A 35-year-old Malay lady, G8 P4+3 at 38 weeks gestation, presented with early labour. When the expectant mothers' cervical orifice opened fully, fetal tachycardia occurred. This was the moment she developed generalised tonic-clonic seizure, loss of consciousness and cardiorespiratory arrest which prompted for perimortem caesarean section. After two hours of emergency rescue, she became asystole, so the clinical death was announced. The histopathological finding of the clinical autopsy confirmed myocarditis and amniotic fluid embolism were the cause of death. *Discussion:* The patient has no specific cardiac symptom to suggest that she was having myocarditis before the catastrophic event during delivery. Ironically, the histopathological finding confirmed that

she had myocarditis otherwise. On the other hand, amniotic fluid embolism which is another cause of her death becomes one of the obstetric emergencies. Several studies suggest that AFE might result from immune activation the leakage of amniotic fluid into the maternal circulation. The patient developed seizure during delivery might suggest AFE as the thing in play. *Conclusion:* In conclusion, the present case was asymptomatic by means of a cardiological disorder, the possibility of myocarditis as the complication of amniotic fluid embolism or also as one cause of death remains wide open.

CR25 A rare case of rhinofacial infection: A case report

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Introduction: Conidioboluscoronatus is a rare causative agent of chronic rhino-facial zygomoycosis occurring in adults of tropical regions. *Case report*: We investigate rare case of fungal infection involving nasal cavity and lip of a 53-year-old farmer diagnosed by histopathology and microbiological studies. He presented with nasal swelling for 6 months increasing in size with total unilateral nasal blockage, widen nasal bridge and swelling of the upper lip. Rhinoscopy showed a skin-coloured mass in the right nasal cavity. The mass is seen at the vestibule, possibly arising from septum while no extension of mass to nasopharynx. No mass seen in the left nasal cavity. Total of 3 biopsies were taken. Initial right nasal mass biopsy showed only granulation tissue with background of lymphohistiocytic infiltration, plasma cells and eosinophils**.** Subsequent biopsies of the right nasal mass and lip showed intense eosinophilic reaction associated with broad hyphae demonstrating Splendore-Hoeppli phenomenon while further staining with GMShighlighted the fungal organisms. Microbiological studies taken from the upper lip managed to isolate *Conidioboluscoronatus*. Anti-fungal therapy commenced with improvement on patient's condition observed on subsequent follow up. Patient's nasal blockage improved with near normal right nasal cavity size with resolved upper lip thickening or nodule. *Discussion*: This case represents a rare fungal infection involving the rhino-facial region. It also illustrates the importance of multidisciplinary team discussions and additional sampling for diagnostic confirmation.

CR26 Low-grade appendiceal mucinous neoplasm (LAMN): Case series

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Introduction: HTAA reported 2 cases of LAMN, both underwent right hemicolectomy, presenting with constipation and abdominal pain, one specifically at the right-iliac fossa (RIF). Interestingly, age and sex affected in our case series were of different demography from international data. *Case 1:*55 year old lady, with multiple co-morbidities, presented with abdominal pain, distension and constipation for 1 day duration. Pre-operative diagnosis was small bowel obstruction. On grossing, small bowel perforation was noted with an otherwise unremarkable appendix (measuring 37mm in length, 12mm in diameter) and ascending colon. Microscopically: The identified appendix is lined in areas by single to stratified columnar epithelium with low-grade dysplastic changes. The underlying submucosa is fibrotic and lacks of lymphoid cells. Large amount of mucin seen within the lumen and some within the wall. No obvious invasion or perforation seen. Eight reactive lymph nodes found, otherwise, negative for malignancy. *Case 2:*49 year old lady, presented with fever and RIF pain for 2 days with background constitutional symptoms and constipation for 6 months. Ultrasound was done showing RIF collection. On grossing, the appendix (40mm in length, 15mm in diameter) and caecum appears dusky and sloughy. Microscopically: The appendix shows transmural neutrophilic infiltration and also chronic inflammatory cells infiltrate with areas of fibrosis within the underlying submucosa. Muscularis propria disruption is noted in areas. The epithelium shows hyperplastic changes and lies on a fibrous tissue rather than a lamina propria. Large amount of mucin seen within the lumen and its wall. No obvious invasion seen. 15 reactive lymph nodes identified, negative of malignancy. *Discussion and Conclusion*: LAMN is defined as mucinous neoplasm with low-grade cytology and any of the following: 1. Loss of muscularis mucosae, 2. Fibrosis of submucosa, 3. Undulating or flattened epithelial growth, 4. Expansile or diverticulum-like growth, 5. Dissection of acellular mucin in the wall, 6. Mucin and/or neoplastic cells of the appendix[2].

CR27 Solitary fibrous tumour of the urinary bladder: A case report

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Introduction: Solitary fibrous tumour (SFT) is a fibroblastic tumour which can occur in any anatomical site with a wide range of histological patterns. *Case report*: We present a case of 65-year-old male who was incidentally found to have a bladder tumour during a hospital admission for acute pancreatitis. Rigid cystoscopy showed two infiltrating bladder lesions measuring 1cm and 5cm in diameter respectively. Transurethral resection of the bladder tumours was done. Histologic examination showed a bladder tumour arranged in cellular sheets composed of round to ovoid, fairly uniform bland nuclei with fine chromatin and moderate amount of eosinophilic cytoplasm. Hypocellular areas with myxoid degeneration and scattered ectatic branching vessels are present within the tumour with occasional perivascular hyalinization. These neoplastic cells were immunoreactive for CD34, BCL2 and STAT6. *Discussion*: SFT of the urinary bladder are usually detected incidentally and is identical to SFT occurring at other sites. SFT is characterised by haphazardly arranged spindled to ovoid cells and prominent staghorn vasculature.

Immunohistochemistry is an extremely useful tool to differentiate SFT from other spindle cell tumours. STAT6 expression appears highly specific for SFT. The genetic hallmark of SFT is a paracentric inversion involving chromosome 12q, resulting in the fusion of the NAB2 -STAT6 genes. Currently, there are proposed risk stratification models which are able to predict prognosis and metastatic risk more accurately. *Conclusion*: Differential diagnosis of SFT should be considered in spindle cell lesions of urinary bladder. Long term follow-up is recommended because of potential for metastasis and recurrence.

CR28 Hypertensive emergency in a young woman with IgA nephropathy

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Introduction: IgA nephropathy (IgAN) can potentially lead to end-stage renal disease. Clinical presentation varies but commonly, the patient presented with hematuria with or without proteinuria. The renal biopsy will provide a definitive diagnosis. Persistent hematuria, increased serum creatinine level, severe proteinuria, and malignant hypertension at first presentation are rare and associated with poor prognosis. *Case report:* We reported a case of a 27-year-old woman who presented with hypertensive emergency and impaired renal functions. She was later diagnosed with crescentic IgAN (cIgAN), M0 E1 S1 T1 C2 (Oxford Classification) and treated with a combination of antihypertensives, steroids, and cyclophosphamide. *Discussion:* The diagnostic hallmark of IgAN is predominant IgA deposit or co-dominant with IgG or IgM in the glomerular mesangium. Complement C3 is almost always present. Histopathological findings range from mild mesangial proliferation to diffuse crescent formation. Crescentic IgAN (cIgAN) is a rare phenotype. About 20% of cases exhibit crescents formation with endocapillary proliferation and marked fibrosis on the initial biopsy. Rapid progression of acute renal failure, nephritic-nephrotic syndrome and malignant hypertension are uncommon but can be one of the end spectrums of clinical presentation in IgAN. The presence of hematuria with or without proteinuria among hypertensive patients should include IgA nephropathy as a possible differential diagnosis. The exact pathogenesis of IgAN-malignant hypertension is still unclear. The severity of the glomerular lesions might be the attributed factors. The treatment goal is to control the blood pressure and prevent further deterioration of the renal functions. *Conclusion:* Crescentic IgAN (cIgAN) should be considered in a patient with concurrent malignant hypertension and hematuria.

CR29 Nodular fasciitis : A diagnostic conundrum

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Introduction: Nodular fasciitis is a benign, self-limited lesion of myofibroblastic derivation. The lesion is often solitary, with a predilection for the upper extremities, head, neck and trunk. Gender distribution is equal, with a 1:1 ratio in males and females. *Case report*: We illustrate 2 cases, the first case is a 45-year-old female who presented with a forehead lump of 2 month duration, rapidly increasing in size. The lesion was excised and and sent for histopathological examination. The second case is a 30-year-old male who presented with a right sided upper eyelid mass of 1 month duration. The lesion was excised and sent for histopathological examination. *Discussion:* Histopathological evaluation of both cases revealed a circumscribed lesion composed of spindlecells arranged in fascicles, with USP6 expression on immunohistochemistry. Fluorescence in situ hybridization (FISH) study was carried out for the first case, demonstrating USP6 gene arrangement. *Conclusion*: The main objective of this study is to highlight that nodular fasciitis is of diagnostic importance as it is a mimicker of sarcomas and other malignant spindle cell lesions. Accurate diagnosis ensures that the patient is not commenced on aggressive treatment modalities.

CR30 A case of carcinosarcoma of fallopian tube

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Introduction: Carcinosarcoma, formerly known as malignant mixed Mullerian tumour (MMMT) arising primarily from fallopian tube is an exceedingly rare tumour in accordance to the epidemiological aspect. It is a biphasic tumour with a high grade carcinomatous and sarcomatous component. We report a case of carcinosarcoma of the fallopian tube. *Case Report*: A 45-year-old nulliparous lady presenting with acute abdominal pain and gross ascites associated with severe anemia. She underwent emergency peritoneal tapping in view of worsening symptoms and further proceeded with exploratory laparotomy, total abdominal hysterectomy bilateral salpingoopherectomy, omentectomy and appendicectomy. Histopathological examination

reveals a large left fallopian tube tumour with a high-grade serous carcinoma component intermingled with chondrosarcomatous and rhabdomyosarcomatous components. *Discussion:* Carcinosarcoma of the fallopian tube is a rare entity with only less than 90 cases being reported to date. However, it is an aggressive tumour with varied outcome depending on the stage. The diagnosis is made possible by identifying the high grade carcinomatous and sarcomatous component morphologically with the adjunct of immunohistochemistry. The tumour arises primarily from the fallopian tube with unremarkable ovarian findings. *Conclusion*: We hope that by reporting this case, there is an awareness of this pathological entity and the understanding of the disease will be enhanced.

CR31 Intestinal Mycobacterium Avium Complex infection with concomitant Ziehl-Neelsen, Periodic Acid-Schiff and Grocott Methenamine Silver histochemical stains positivity

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Introduction: Mycobacterium Avium Complex (MAC) are ubiquitous environmental microorganisms. MAC usually causes pulmonary infections but disseminated disease occurs almost exclusively in immuno-compromised with particularly low CD4 count due to HIV infection. Intestinal MAC most commonly involves the duodenum. Patients typically present with symptoms related to malabsorption, prompting colonoscopic examination and biopsies. We hereby present a case of intestinal MAC and its histopathological aspects including histochemical stains. *Case Report*: A 40-year-old male, underlying HIV infection with CD4 count of <35 cells/μL, presented with chronic diarrhoea. Colonoscopy showed normal mucosa. Random biopsies were taken from ascending and descending colon. Histologically, the tissue shows collection of epithelioid histiocytes within the lamina propria. There are abundance of intracellular microorganisms that are concomitantly positive for Ziehl-Neelsen (ZN), Periodic Acid-Schiff (PAS) and Grocott Methenamine Silver (GMS) histochemical stains. The diagnosis of intestinal atypical mycobacterium infection was made. Subsequent peripheral blood culture identified MAC. *Discussion*: Histiocytic collections within the lamina propria is the typical tissue finding in MAC infection. ZN stain had been proven to be the most reliable stain to identify acid fast bacilli (mycobacterium) but it is unable to further subtype. Utility of a panel of histochemical stainings: ZN, PAS and GMS, have diagnostic significance as there are only limited microorganisms which will be concomitantly positive. The positivity also highlights particular characteristics which defines MAC. *Conclusion*: Awareness of the utility of histochemical stains in MAC will aid in early tissue diagnosis and treatment of MAC infection. Culture still remains the gold standard diagnostic test.

CR32 A case of inflammatory myofibroblastic tumour

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Introduction: Inflammatory myofibroblastictumours (IMTs) are rare spindle cell neoplasms of borderline malignancy. These tumours have been commonly described in pulmonary and gastrointestinal sites in children, but are very rarely found in adults. *Case report*: We report a case of an inflammatory myofibroblastictumour in 32-year-old woman, who presented with loss of weight and worsening chest pain associated with respiratory distress for over 2 months. Radiological imaging revealed a massive left-sided pleural effusion. Pleural biopsy exhibited a hypercellular spindle cell neoplasm, displaying cells arranged in fascicles and storeiform arrays. Immunohistochemical analysis of the tumour cells showed positivity forCD30, actin and ALK-1. The cells were negative for LCA, pancytokeratin, AE1/ AE3 and CAM 5.2. *Fluorescence in situ hybridisation*(FISH)study detected ALK gene rearrangements. The tumour was also analysed by next-generation sequencing using the Oncomine Precision Assay on the Ion Torrent Genexus platform, which confirmed the presence of ALK fusion (TPM4-ALK [T7A20.COSF441]). The patient was started on Crizotinib, a targeted therapy for ALK mutated tumours. *Discussion*: Inflammatory myofibroblastictumours show an array of patterns such as nodular fasciitis-like, storeiform, fascicular or hypocellular. The cells tend to demonstrate positivity for myogenic markers such as vimentin and actin, and also show a diffuse cytoplasmic staining for ALK-1 in 40-60% of reported cases. *Conclusion*: This case report highlights the scarcity of this tumour occurring in adults. IMTs account for less than 1% of all lung tumours in individuals aged 18 and above. We also focus on the importance of diagnosing these rare tumours as the response to targeted therapy is excellent.

CR33 A rare presentation of osteosarcoma of the rib

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Introduction: Osteosarcoma is the most common primary tumour of the bone. It is mostly seen in younger patients from 10 to 14 years of age, and is related to early, aggressive growth with poor prognosis. *Case report*: We describe a case of osteosarcoma in a 26-year-old male who presented with a six-month history of back pain and lower limb paraesthesia, with a paravertebral mass seen on MRI suggesting an intraosseous lesion arising from the rib. An initial biopsy displaying bone destroying tumour cells and osteoid formation prompted a diagnosis of high-grade conventional type osteosarcoma. Subsequently, chemotherapy and radiation therapy was employed in the management of the case, following a wide excision and tumour debulking surgery. *Discussion*: High grade conventional type osteosarcomas account for more than 90% of reported cases, and usually occurs in long bones. These tumours are rarely found in flat bones like the rib. *Conclusion*: This case report highlights the rarity of this tumour occurring at a site such as the rib, which accounts for 1-3% of all cases of primary osteosarcoma.

CR34 High grade serous carcinoma of fallopian tube presented as peritoneal carcinomatosis: A case report

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Introduction: Primary fallopian tube carcinoma is a rare gynecological malignancy with poor prognosis. The presentation is non-specific and difficult to diagnose preoperatively. It has lack of specific symptoms and usually presented with advanced metastatic symptoms. *Case report*: We are presenting a 56-year-old lady, presented with gross ascites. Diagnostic paracentesis and fluid cytology revealed metastatic adenocarcinoma. Abdominal computed tomography revealed peritoneal carcinomatosis. Series of initial investigation were inconclusive of primary lesion. She received neoadjuvant chemotherapy and subsequently underwent total abdominal hysterectomy and bilateral salphingoopherectomy (TAHBSO). Gross examination revealed a small solid lesion obliterating the distal part of left fallopian tube measuring 10 mm in greatest dimension with multiple tumour deposit at serosal surface of uterus and left ovary. Histopathological examination showed high grademalignant cells arising from the surface epithelium of fallopian tube. The morphology of papillary and solid pattern withpositive WT1 and P53 immunostaining confirmed a diagnosis of high-grade serous carcinoma of fallopian tube, FIGO stage IIIA2 (TNM stage pT3a). *Discussion*: The presentation of primary fallopian tube carcinoma inthis case is nonspecific. Eventhough the tumour is localised and small in size but it is readily disseminated to the peritoneal cavity causing diagnostic challenges. *Conclusion*: Diagnosis of primary fallopian tube carcinoma should be considered in cases presented with peritoneal carcinomatosis of unknown primary and vigilance gross examination of specimen is important to prevent missed diagnosis of small tumour.

CR35 Case study: Synchronous adenocarcinoma of colon in a young and pregnant lady

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Introduction: Colorectal malignancies are most commonly found in males, within the 60-74 years age group (18.7%). In our case, our patient was diagnosed at a much younger age at 36 years old which was rather uncommon in this age group and sex. *Case summary:* Our case is a 36-year-old pregnant lady with previously no comorbidities when she presented with epigastric pain for 2 month duration associated with bloating, two episodes of per rectum bleeding and dribbling of stool. However, family history of CRC is noted whereby her sister was diagnosed with CRC at the age of 36 years old. She underwent upper gastrointestinal endoscopy (OGDS) and colonoscopy which revealed multiple benign polyps within multiple sites and a splenic flexure mass. The patient underwent subtotal colectomy with on table sigmoidoscopy two months after the scope which revealed a 6 x 8cm tumour over the mid transverse colon with multiple enlarged lymph nodes, as well as polyps at about 20cm from anal verge. Histopathological examination revealed a mucinous adenocarcinoma of the transverse colon metastatic deposits of the lymph nodes. A synchronous moderately differentiated adenocarcinoma in a pedunculated polyp and a moderately differentiated adenocarcinoma in a sessile polyp are also found. *Discussion:* Colorectal carcinoma (CRC) is found in a young patient, pre-existing ulcerative colitis or one of the polyposis syndromes must be suspected. The findings of multiple polyps in this patient during the first colonoscopy and biopsy along with the positive family history of CRC as mentioned may suggest Familial Adenomatous Polyposis (FAP).

CR36 Goblet cell adenocarcinoma: Another differential of a mucin-rich tumour of the appendix

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Introduction: Goblet cell adenocarcinoma (GCA) is a rare tumour occurring almost exclusively in the appendix. GCA may be rich in mucin, creating confusion with other tumours, particularly signet ring and mucinous adenocarcinoma. *Case Report:* A 64-year-old male presented with a one-day history of severe sharp right iliac fossa pain. The abdomen was diffusely tender with rebound tenderness. A CT scan showed thickened appendiceal wall without a mass. Intraoperative findings were consistent with perforated acute appendicitis. The appendix was removed. Grossly, the appendix was perforated at the tip and covered by fibrinopurulent exudate. The wall was thickened with no mass lesion. Microscopically, a 2cm distal tumour with prominent goblet cell differentiation was seen infiltrating in a circumferential manner into the mesoappendix. There were abundant extravasated mucin pools. Approximately half of the tumour showed carcinomatous features with nuclear pleomorphism and frequent mitoses. Tubules and clusters of goblet cells and cells with granular eosinophilic cytoplasm were present, consistent with low-grade GCA. There were perineural invasion and foci suspicious of lymphovascular invasion. The mucosa was not adenomatous nor hyperplastic. The excision margin was negative. A diagnosis of GCA, grade 3 was rendered. *Discussion***:** GCA may occasionally be mucin-rich. This, combined with goblet cell morphology may lead to misclassification into signet ring or mucinous adenocarcinoma. Demonstration of classic low-grade GCA clinches the diagnosis. The proportions of low and high-grade components influence prognosis and management. *Conclusion:* GCA is another potentially mucin-rich appendiceal tumour. Attention to morphology and identification of classic low-grade GCA component will avoid misdiagnosis.

CR37 Amniotic fluid embolism: A case report

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Introduction: Amniotic fluid embolism (AFE) is an uncommon but potentially life-threatening pregnancy related complication. Due to its limited understanding and management guidelines, the mortality rate of this condition remains high. *Case report:* A 34-year-old, Malay lady at 40 weeks and 5 days of gestation, with antenatal history of iron deficiency anaemia, was given Pitocin augmentation and performed artificial rupture of membrane for prolonged latent phase. Shortly after, she was hypotensive, cyanosed, breathless, fitted with bleeding tendencies. Cardiotocography shows fetal bradycardia. She was pronounced death despite after multiple resuscitation attempts. A clinical autopsy was performed and showed unremarkable macroscopic examinations. Microscopically, the maternal pulmonary vessels show intravascular squames, lanugo hair and fat cells which are associated with fibrin thrombi formation and platelet aggregation. Amniotic fluid is detected within the alveolar spaces. Mast cells infiltration with degranulation are demonstrated within the lung, heart and uterine tissue. *Discussion:* Previously, the pathophysiology of AFE was hypothesized as mechanical obstruction caused by the abnormal entry of amniotic fluid content into the maternal circulation. However, a more significant mechanism of AFE was discovered and it is due to the activation of non-IgE mediated maternal immune-inflammatory responses, such as mast cell-mediated anaphylactoid reaction towards fetal antigen present in the maternal circulation. This causes vasopasm of pulmonary blood vessels, complement and platelet activations. *Conclusion:* Histopathological examination plays an important role in diagnosing amniotic fluid embolism. The current diagnosis is based on the presence of suggestive clinical presentation, exclusion of other potential causes and presence of relevant histopathological findings.

CR38 Gingival mass as a primary manifestation of multiple myeloma: A case report

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Introduction: Plasma cell myeloma is a proliferation of neoplastic plasma cells and predominantly associated with production of monoclonal immunoglobulin. The occurrence of mandibular gingiva swelling as the first sign of multiple myeloma (MM) is uncommon. Here, we report a case of a patient with rapid growth of mandibular enlargement that results in facial asymmetry, which ultimately led to a diagnosis of multiple myeloma. *Case report*: A 54-year-old Malay lady presented with a painless swelling on her right mandible that had persisted and increased in size for two months. The swelling resulted in facial asymmetry contributing to difficulty in chewing and paraesthesia of the right lower lip. Intra-oral examination revealed a large reddish, bluish gingival mass over the edentulous area of premolars and molars extending bucco-lingually. Panoramic radiograph showed a large ill-defined radiolucent lesion located at the right body of mandible. Cone-beam computed tomography images (CBCT) demonstrate an expansile osteolytic lesion associated with radiographic signs of pathologic fracture at the lower border of the right mandible. *Discussion:* An incisional biopsy was performed, and histopathological examination revealed sheets of neoplastic plasma cells with hyperchromatic nuclei, some with binucleated nuclei and abundant eosinophilic cytoplasm. Immunohistochemical studies showed positivity for CD138, MUM1 and kappa light chain restriction. A diagnosis of plasma cell

myeloma was established, and further investigations indicate a diagnosis of multiple myeloma. *Conclusion:* This case highlights the importance of clinicopathological evaluation of oral lesions in multiple myeloma for early diagnosis and treatment of the patient in order to achieve better disease remission.

CR39 Epithelioid angiomyolipoma or high-grade renal cell carcinoma: A diagnostic pitfall

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Introduction: Angiomyolipoma (AML) is a benign neoplasm of renal tumour which is usually asymptomatic. The diagnosis of AML is often incidental. Epithelioid angiomyolipoma is a variant of angiomyolipoma with predominant epithelioid histology. It is rare and considered potentially malignant. *Case report:* We present a case of a middle-age female presented with a short history of sudden onset of cramping right sided abdominal pain, with spike of temperature and sudden dropped of haemoglobin that warrant her two pints packed cells transfusion. An urgent contrast enhanced computerized tomography (CECT) of the abdomen and pelvis was done and showed large exophytic fat containing renal mass with extensive peri and paranephric fluid which raised suspicion of tumour rupture. Right radical nephrectomy was performed to reveal a haemorrhagic ruptured renal tumour with a variegated yellowish cut surface. Microscopically, the tumour is composed predominantly of epithelioid cells with clear to eosinophilic cytoplasm, minimal mature fat and thick-walled blood vessels. Our first impression was to rule out high grade RCC. However initial panel for epithelial markers are negative and subsequently further immunohistochemical stains are done and are positive for S100, Melan-A andHMB-45. *Discussion:* Epithelioid AML with predominant epithelioid and spindle cells can resemble high grade RCC and sarcomatoid RCC. Immunohistochemistry is important in differentiating these two in which RCC will show positivity for keratins and EMA and negativity for melanocytic markers. *Conclusion:* In summary, clinical, radiological and histopathological examination along with immunohistochemical study are crucial for accurate diagnosis.

CR40 Mantle cell lymphoma pleomorphic variant: Series of two case reports

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Introduction: Mantle cell lymphoma is known to be one of the aggressive and incurable low grade mature B cell lymphoma. Identifying pleomorphic variant is important as clinically more aggressive lesion and poor prognosis. *Case report:* We present two cases of Pleomorphic Mantle Cell Lymphoma involving elderly gentleman aged 53 and 63 years old. The first case was a known Mantle Cell Lymphoma in remission but presented again with new inguinal swelling. The second case presented with tonsillar enlargement and inguinal nodes swelling. Histology findings of both cases show heterogenous cell population with presence of large and pleomorphic cells having irregular nuclear contour and prominent nucleoli. Immunohistochemical studies are positive for CD20, CD79a, CD5 and Cyclin D1. The first patient refused for autologous stem-cell transplant and opted for oral chemotherapy for disease control, while the second patient is keen for autologous stem cell transplant. *Discussion:* The criteria to classify the tumour as Pleomorphic variant of Mantle Cell Lymphoma is entirely based on the morphological features, characterised by the presence of large cell lymphoma with pleomorphic features. At least one of the cells must have a prominent nucleoli. The immunohistochemical staining pattern are similar to classic mantle cell lymphoma. The proliferative index cannot determine the different between the classic and pleomorphic variant. *Conclusion:* Pleomorphic variant of mantle cell lymphoma is one of the differential diagnosis especially when encountering cells with pleomorphic morphology. The identification and reporting pleomorphic variant of mantle cell lymphoma is of significant clinical importance to guide disease treatment and close follow up.

CR41 Borderline Brenner tumour: An incidental finding in a young patient

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Introduction: Brenner tumours of the ovary are rather uncommon neoplasm. They are mostly benign and unilateral. Borderline and malignant type are very rare. It has a predilection for the postmenopausal women. *Case report*: This is a case report of a 30 years old, Malay, nulliparous lady with three months history of abdominal distension and irregular menses associated with dysmenorrhea. CT abdomen & pelvis revealed a large right ovarian mass. She underwent laparotomy, revealed a huge right ovarian mass weighing 3.04kg. A right salpingo-oophorectomy and omentectomy was done and the specimen was sent for histopathological and immunohistochemical study which revealed a borderline Brenner tumour. *Discussion*: The major considerations for this case were Brenner tumour of benign vs borderline, Brenner tumour with stromal overgrowth or ovarian fibroma with minor sex-cord element. *Conclusion*: The histomorphology criteria together with the aid of immunohistochemical stains plays a crucial role in differentiating these tumours.

CR42 Talus metastasis from basaloid squamous cell carcinoma of uterine cervix: Case report and literature review

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Introduction: Basaloid squamous cell carcinoma of uterine cervix (BSCC) is rare and aggressive tumour, commonly metastasized to lymph nodes. *Case report*: a 71-year-old female patient known case of basaloid squamous cell carcinoma of uterine cervix with FIGO stage 2B, presented with right ankle pain for 6 months duration. Plain X-ray revealed multiple osteolytic lesions along talus, malleolus, cuboid, calcaneous, cuneiform and head of 5th metatarsal bones. Biopsy of talus bone showed metastasis of BSCC. *Discussion*: We aimed to highlight the unusual site of distant metastasis of a rare BSCC and to review the previously published reports of BSCC specifically metastasis to bone.

CR43 Phosphoglyceride crystals deposition disease: A rare case of a soft tissue mass with stunning sparkles

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Introduction: Phosphoglyceride Crystals Deposition Disease (PCDD) is an extremely rare disease within the soft tissue with unknown aetiology and associationto previous trauma. *Case report:* Herein we report a case of 69-year-old Malay man, presented with a slow growing mass over the medial aspect of his right calf mass for 2 years. The patient alleged history of previous trauma (laceration). Radiologically the mass was reported as suggestive of a peripheral nerve sheath tumour with malignancy cannot be excluded. A wide local excision with split skin graft was done on 7/4/2021. The intraoperative findings revealed a malignant appearing mass measuring 10cm x 10 cm with necrotic tissue anterior to the mass. There is adherence to the fascia and periosteum. Macroscopically, the mass is located within the subcutaneous layer, measuring 9.2cm x4.5cm x5.5cm. The mass has well-defined lobulated border with tan to yellowish firm cut surface. Microscopically, the mass is composed of numerous tiny round corona-like eosinophilic crystals, engulfed by sheets of foreign body type multinucleated giant cells. These crystals, when examined under polarized light, show spectacular string-like reflective particles. *Discussion:* Clinically and radiologically, PCDD may simulate a sarcoma within the soft tissue, as PCDD shows increase in FDG uptake in PET scans. PCDD also could grow, adhere to adjacent structure and recur repeatedly after surgical removal. *Conclusion:* PCDD, even though a rare entity, should be included in the differential diagnosis, as extensive surgery may be avoided. More research is needed to evaluate whether medical treatments alone is sufficient to help affected patient.

CR44 Dedifferentiated sacral chordoma: A case report

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Introduction: Chordoma is a rare bone sarcoma. It has a predilection for the axial skeleton. There are three recognized histologic variants of chordoma; conventional, dedifferentiated and poorly differentiated. This case report highlights the rarity of dedifferentiated chordoma pertaining to its morphology and immunohistochemical staining. *Case report:* A 58-year-old lady, initially was diagnosed as sacralchordoma, however she defaulted her follow-up. Patient then presented again after several months with increasing size of the sacral mass associated with pain and neurologic symptoms. On examination, the tumour is 40x30cm extending from L4 to the gluteal fold. Magnetic Resonance Imaging (MRI) revealed the mass has significantly increased in size compared to previous MRI. Tumour resection was done. Histologically, the tumour cells are arranged as lobulescomposed of physaliphorous cells. In areas, there is abrupt transition between conventional chordoma and dedifferentiated component. The cells from conventional chordoma are positive for CKAE1/AE3, EMA and S100 while the same markers are negative in dedifferentiated component. *Discussion:* The dedifferentiated chordoma accounts for less than 5% of all chordomas. Most of the symptoms are neurologic. Histologically, the tumour contains areas of conventional chordoma and high-grade sarcomatous component, in which these areas being admixed and sharply demarcated. Immunohistochemically, positivity for CK, EMA, and S100 are traditionally used to support the diagnosis of a chordoma. This panel is generally sufficient to exclude differential diagnoses of chordomaeg: chondrosarcoma and metastatic renal cell carcinoma. *Conclusion:* Dedifferentiated chordomadiffers from conventional chordoma by the rapid growth of tumour and its potential for distant metastasis.

CR45 Urinary bladder paraganglioma: A report of case series and review of literature

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Introduction: Paragangliomas of urinary bladder are rare neuroendocrine tumours that derives from paraganglion cells in the bladder wall, accounting for 0.05% of all bladder tumours. The presenting symptoms are related to catecholamine secretion, include hypertension, haematuria, headache, palpitation, and hypertensive crisis during micturition. We present three different clinical cases of bladder paraganglioma followed by a review of literature. *Case report:* Case no:1 was a 34-year-old male presented with painless haematuria, associated with frequent episodes of throbbing headache and palpitations during micturition. Case no: 2 was a 55 - year-old female, a known case of medullary thyroid carcinoma with incidental finding of a bladder mass during a surveillance examination of CT thorax, abdomen and pelvis. Case no: 3 was a young 32- year- old hypertensive male who presented with palpitation during micturition. All three cases specimens show well circumscribed tumours with characteristic zellbellen growth pattern with intervening fibrovascular septae. The tumour cells are positive for neuroendocrine markers and are negative for pancytokeratin, with S-100 highlighted in sustentacular cells. *Discussion & conclusion:* Bladder paraganglioma is a rare tumour and may cystoscopically and histologically mimic a urothelial carcinoma. Hence, awareness of this entity among Urologists and Pathologists is important with a high index of suspicion, careful attention to clinical details, characteristic histologic features and application of immunohistochemistry is warranted to differentiate this tumour from other bladder tumours. Screening with SDHB immunohistochemistry is recommended which strongly corelates with protein loss due to germline SDH mutation. Tumours associated with SDHB mutations have an increased risk with metastases.

CR46 Bubbles in the brain

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Introduction: Cryptococcus neoformans is an encapsulated yeast that causes opportunistic infections in immunocompromised patients. It is also the most common fungal CNS infection, mainly affects the AIDS or transplant recipient patients. Other risk factors include usage of high dose steroids, sarcoidosis and haematological malignancies. We present a case of disseminated cryptococcal disease in a non -HIV, non – transplant immunocompetent patient. *Case presentation:* A 48-year-old male of no predisposing illness, presented with three months history of headache, vomiting and unsteady gait. MRI brain showed a left cerebellar mass and left suboccipital craniotomy and tumour debulking was performed. In view of his CECT TAP also showed a left lung lesion, bronchoscopy and biopsy was subsequently performed. *Pathological findings*: Histopathological examination of craniotomy specimen showed multiple fragments of unique gelatinous mucoid tissue. Microscopically they showednumerous encapsulated cryptococci lying in the perivascular spaces of the cerebellar parenchyma. The surrounding brain tissue was compressed into a narrow rim with reactive gliosis. The lung lesion also showed encapsulated cryptococci lying in cyst-like spaces in dense fibrous lung tissue. Their thick capsules were highlighted by Grocott methenamine silver (GMS), periodic acid–Schiff and mucicarmine stains. No granuloma or neoplastic process was observed. *Discussion & Conclusion:* CNS cryptococcosis in non-HIV-infected individuals is well recognized and is likely to occur more frequently as patient risk groups expand. Therefore, early diagnosis and treatment are the keys to reducing its significant morbidity and mortality. Detailed clinical history, radiological imaging and laboratory examination are the important parts of auxiliary examination.

CR47 Extraskeletal osteosarcoma of the thigh

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Introduction: Osteosarcomas arising from extraskeletal locations are extremely rare and accounts for approximately 2–4 % of all osteosarcomas. It typically appears as solid mass with variable mineralization while cystic changes presence in a minority of cases. We reported a rare case of extraskeletal osteosarcomas with cystic changes from a thigh mass. *Case report:* A 63-year-old Malay male, presented with a painful and progressive enlarging swelling from his left thigh for 4 months duration. A large firm mass with non-movable and ill-defined margin was examined at the anterior aspect of left thigh. Magnetic resonance imaging (MRI) showed a soft tissue mass of 4.7x7.3x11.8cm, mixed cystic, solid, and hemorrhagic components with calcification, within the vastus intermedius muscle. A percutaneous core biopsy of the mass revealed a pleomorphic sarcoma. Subsequent wide local excision of the mass was performed. Macroscopically, the tumour is circumscribed, mixed solid and cystic component with areas of gritty surface. Microscopically, the tumour is composed of haphazardly arranged, highly anaplastic sarcomatous cells with focal areas of osteoid production. *Discussion*: The differential diagnosis of a soft tissue sarcoma consisting of solid lesion with calcification and a cystic component are dedifferentiated liposarcoma, synovial sarcoma, malignant peripheral nerve sheath tumour and undifferentiated pleomorphic sarcoma. It is very important to make an accurate diagnosis, in order to facilitate appropriate treatment with a chemotherapy regimen suited for the histological type. *Conclusion:* Because of the rarity of the tumour, the differential diagnosis of a soft tissue mass with cystic form and calcification, should include extraskeletal osteosarcoma.

CR48 Lupus nephritis in a woman with Type I Diabetes Mellitus

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Introduction: Type 1 Diabetes Mellitus (T1DM) patients have an increased risk of developing another autoimmune disease, but rarely Systemic Lupus Erythematosus (SLE). However, both disorders can accelerate renal damage. *Case report:* We describe a case of a 37-years-old woman having T1DM on insulin therapy since the age of 20, with concurrent SLE recently diagnosed at the age of32. The patient initially presented with recurrent fetal loss and tested positive for double-stranded DNA (dsDNA) and anti-nuclear antibody (ANA). Later on, she developed impairment of renal function. Her ultrasound showed bilateral renal parenchymal disease. She underwent renal biopsy where the histopathological examination revealed more than 50% of the glomeruliexhibit endocapillary hypercellularity. An immunofluorescence study showed a full-house pattern (positive staining for IgG, IgA, IgM, C3, C4, C1q, κ and λ). Diabetic features such as Kimmelstiel-Wilson nodules are also observed in some of the glomeruli. A final diagnosis of class IV Lupus nephritis with diabetic changes is made. Unfortunately, despite the initiation of immunosuppressive medication, the patient's renal condition worsen, necessitating renal replacement therapy. *Discussion:* T1DM had been linked with autoimmune disorders such as autoimmune thyroid diseases, coeliac disease, autoimmune gastritis and Addison's disease. However, the coexistence of T1DM with SLE is rarely reported. The compounding effect of the disease may put the patient at risk of developing earlier end-organ damage, including rapid progression to renal failure. *Conclusion:* Early recognition and management of these two disorders are crucial as delays in diagnosis may cause undesirable morbidity to thepatient.

CR49 Solitary brain metastasis as initial presentation of prostate adenocarcinoma

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Introduction: Prostate cancer is the 4th most common cancer worldwide, commonly diagnosed during screening. Metastatic prostate cancer on the other hand commonly present with bony pain, and rarely metastasized to the brain. Brain metastasis usually occurs late with concurrent extensive metastasis to other organ *Case Report:* We describe a 54-years old, previously well gentleman whom initially presented with frontal lobe syndrome without urinary symptoms and was clinically diagnosed with frontal lobe meningioma. MRI Brain shows an enhancing lesion with hyperostosis and presence of duratail. Histopathological examination revealed brain metastatic of prostate adenocarcinoma. *Discussion:* Patients are usually diagnosed at its primary sites. Metastasis to the brain is rare with incidence of 0.47% to 8.6%, usually it metastasizes to the lymph nodes and bones. Non-specific characteristic is seen on MRI, thus sometimes it may mimic other primary brain disease such as meningioma. In our patient, he presented with brain lesion that radiologically mimics meningioma rendering the surgeon to put prostate cancer low down the list of differential diagnosis. As adenocarcinoma is the most common histologic type in prostate cancer, so is the histologic appearance of metastatic cells found in the brain. Surgical resection followed by whole-brain radiotherapy (WBRT) is currently the standard treatment for resectable solitary cerebral metastases. *Conclusion:* Although meningioma is common intracranial tumour, metastatic prostatic carcinoma should be considered as differential as well. Especially when the mass is superficial and occur in male patient. Thus, screening of prostate cancer with serum prostate specific antigen (PSA) should be considered.

CR50 A huge retroperitoneal lipoma in 32-year-old lady: A case report

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Introduction: Retroperitoneal lipomas are rare entities, and their diagnosis carried significant challenges with difficulties to rule out liposarcoma. *Case report:* We described a case of 32 years-old-lady with an incidental finding of retroperitoneal mass measuring 230mmx200mmx60mm during lower segment caesarean section. The CT scan post operation showed a large retroperitoneal mass with intramuscular extension into the left gluteal muscles and left iliac bone erosion. Tissue from CT-guided biopsy showed

lobules of mature adipocytes with no atypical stromal cells seen. Subsequently, she underwent wide local excision of the tumour bulk. The histopathology examination revealed lobules of mature adipocytes of typical lipoma predominantly. However, in focal areas, there are patchy areas of variation in adipocytes size and shapes without definite atypia seen. The stromal cells were negative for CD34, CD117, HMB45, and Melan A. The tissue was sent for molecular analysis in view of the retroperitoneal location and huge tumour size. However, the FISH: MDM2/CEP12 probe does not show an amplification. Thus, the diagnosis of lipoma was made. *Discussion:* The location, size, and behaviour of the mass make it clinically suspicious liposarcoma. With extensive sampling combined with molecular testing, it is essential to differentiate between benign lipomatous tumours and their malignant counterparts. *Conclusion:* Molecular testing for lipomatous tumours is crucial for diagnostically challenging cases.

CR51 Urothelial papilloma of urethra: Differentials diagnoses

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Introduction: Urethral neoplasms are relatively rare in additional of its broad diversity of pathological disease pertaining to urethral region. Benign lesions may mimic cancer either from urologists or pathologist's perspective. Thus, due to its rarity, it can be challenging to finalize the definitive diagnosis. *Case report:* We presented a case of 53 years old gentleman, chronic smoker, with history of painless haematuria for 3 weeks associated with incomplete voiding and frequency. Cystoscopy revealed a fluffy, polypoid tissue over prostatic urethra. Urothelial carcinoma cannot be excluded clinically. Interestingly, histopathological assessment revealed a case of urothelial papilloma. *Discussion:* Illustration of the diagnostic approach based on solitary polypoid lesion and papillary neoplasms from the urethra was elaborated accordingly. The salient features of each disease spectrum were also highlighted. *Conclusion:* Pathological approach in conjunction with clinical and radiological findings may help in correct recognition of urethral pathology.

CR52 Tall cell variant papillary thyroid carcinoma (TCVPTC): A case report

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Introduction: Papillary thyroid carcinoma (PTC) is the most common thyroid neoplasm with generally good prognosis. TVPTC is one of its variant which is associated with less favourable outcome. *Case report:* A 60-year-old lady with anterior neck swelling for 1 year. Clinically, she was euthyroid with normal thyroid function test. Fine needle aspiration reported as suspicious of PTC and total thyroidectomy was performed. Histopathological examination revealed malignant epithelial cells disposed in papillary configuration with definite nuclear features of PTC. Most of the tumour cells are tall in which their height were twice as their widthand accompanied by abundant eosinophilic/oncocytic cytoplasm. Lymphatic invasion is seen. No extrathyroidal invasion was documented. *Discussion*: Certain histologic variant of PTC is known to be associated with poor prognosis. Thesevariants are tall cell variant, columnar cell variant, solid/trabeculae variant, hobnail variant and diffuse sclerosing variant. TCVPTC shows distinctive columnar cells with the height is at least twice the width. By strict definition, at least 30% of the tumour cell population are composed of cells that are two to three times as tall as they are wide, and showing abundant eosinophilic cytoplasm. TVPTC is highly associated with extrathyroidal extension and distant metastasis. Clinically, this entity affect predominantly elderly women as compared with the conventional PTC. *Conclusion*: Recognition of TVPTC and made a correct diagnosis based on strict histomorphological criteria is crucial as this entity carries a bad outcome to patient.

CR53 A case series of adult Ewing sarcoma: Hospital Universiti Sains Malaysia experiences

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Ewing sarcoma (ES) is relatively uncommon, and the rarity increases in adults over the age of 20. However, they occur in adults and are characterised by a similar spectrum of EWSR1-ETS gene fusions as seen in childhood. The recent WHO defined ES as a small, round cell with pathognomonic molecular findings. The ES and PNET have recently been unified into a single category named Ewing sarcoma family tumours (ESFT) as they shared clinical, morphological, biochemical, and molecular features. Dealing with small round cell tumours is always a challenge for pathologists to handle, manage, and integrate molecular pathology into the routine diagnosis of round cell sarcomas when needed. Here, we reviewed six adult ES cases in Hospital UniversitiSains Malaysia between 2013 till January 2021. The challenge in diagnosis when it occurred in unusual age ranges has been highlighted. The clinical and radiological correlation combined with histology, the management, and disease outcomesis also discussed.

CR54 Granular cell tumour of the caecum: A common tumour in a rare location

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Introduction: Granular cell tumour is a benign neoplasm composed of cells showing neuroectodermal differentiation with distinctive abundant granular cytoplasm. *Case report:* We present a case of a 58-year-old male who presented with intermittent per rectal bleeding secondary to known case of haemorrhoid. Colonoscopy as a part of colorectal cancer screening revealed multiple polyps in the caecum which biopsy shows nests of distinctive large granular cells within the lamina propria and submucosa. *Discussion*: Granular cell tumour is a rare, benign tumour that can occur almost anywhere in the human body. Among reported locations, the oral cavity, skin and subcutaneous tissue are where the tumour is most commonly found. Gastrointestinal tract involvement is rare with oesophagus being the most frequently involved. The vast majority of these tumours do not recur even when the excision is incomplete. A rare proportion of the oesophageal counterpart were reported to be locally aggressive and metastasize. Recent developments in molecular genetics and tumour biology have suggested ATP6AP1 mutations as the genetic basis of malignant transformation of these tumours. *Conclusion:* As rare as they are, granular cell tumour of the gastrointestinal tract, specifically the colon, does occur and this histomorphological finding in the colon should not throw young pathologists off balance. Future characterization of the tumour may help pathologists in predicting its behaviour. However, the rarity of the tumour may suggest that this will be much further in the future.

CR55 Eyelid IgG4 related-disease mimicking atypical follicular hyperplasia: A diagnostic challenge

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Introduction: IgG4-related disease is a fibroinflammatory condition characterised by IgG4-bearing plasma cells in the involved tissues. It can affect any organ system. Lacrimal glands being the common site in ocular involvement. Herein, we describe a case of IgG4-related disease from unilateral eyelid mimicking atypical follicular hyperplasia. *Case report:* This is a 29-year-old lady, presented with left upper eyelid swelling for 6 months and progressively increasing in size. Computed tomography (CT) show features of lacrimal gland mass with a differential of lacrimal gland tumour or lymphoma. Histological findings show follicular hyperplasia with areas of follicular lysis and fibrosis. Numerous plasma cells and eosinophils are also seen. No obliterative phlebitis is identified. Immunohistochemical studies show polyclonal population of B (CD20) and T (CD3) lymphocytes. Expanded follicular dendritic meshwork is seen, highlighted by CD21 and CD23. CD3, CD5, CD10, cyclin-D1, and CD23 are negative with low proliferative index of 10-15%. Kappa and lambda immunohistochemistry show polyclonality. Further immunohistochemical study revealed IgG4+ plasma cells of 253 per HPF and IgG4:IgG plasma cell ratio of 67.8%. Histologically, it is highly suggestive of IgG4 related disease and is supported serologically by elevated IgG4 level. *Discussion:* Ocular adnexal IgG4-related disease may simulate atypical follicular hyperplasia. An early distinction of IgG4-related disease are crucial to avoid delay and misdiagnosis in aiding the physicians to institute ideal management. *Conclusion:* The ability to distinguish IgG4-related disease from its pathological mimickers is challenging. Despite its complexities, it is important to provide accurate diagnosis due to its favourable steroid response and to avoid potential overtreatment.

CR56 Sinonasal solitary fibrous tumour with concurrent papillary thyroid carcinoma: A case report

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Introduction: Solitary fibrous tumour (SFT) is a relatively rare mesenchymal tumour that may occur at any site. 10 – 15% of the cases arise in the head and neck with the sinonasal tract being the commonest location other than orbit.SFT accounts for 0.1% of all sinonasaltumours, emphasizing the uncommonness of the disease. Simultaneous diagnosis of SFT and another tumour are even rarer, with only a few previously reported cases. *Case report:* A 67-year-old Malay man, initially presented with a right neck mass and subsequent tissue biopsy revealed a papillary thyroid carcinoma (PTC). After a year of treatment refusal, he presented again with progressively enlarging left nasal and intraoral mass, accompanied by epistaxis developing within 8 months. A contrast-enhanced computed tomography revealed an expansile lytic lesion with soft tissue component over the left maxillary sinus with soft tissue component extending to the nasopharynx, ethmoid, sphenoid and frontal sinuses. Tissue biopsy shows low-grade, spindle cell morphologywith low mitotic activity and focal tumour necrosis. An immunohistochemistry study confirms the diagnosis of a solitary fibrous tumour. *Discussion*: Concurrent sinonasaltumour with PTC triggers the need to exclude metastasis. The differential diagnosis of primary sinonasaltumourwithspindle cell morphology in the elderly includes solitary fibrous tumour, sinonasalglomangiopericytoma, biphenotypicsinonasal sarcoma and desmoid-type fibromatosis. Malignant peripheral nerve sheath tumour and synovial sarcoma should also be considered. *Conclusion*: We present a case of sinonasal SFT that poses diagnostic challenges due to its rarity and synchronous occurrence with papillary thyroid carcinoma.

CR57 A case of neurofibroma of the tonsil

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Introduction: Neurofibroma is a benign peripheral nerve sheath tumour that can exist in cutaneous or solitary form. Neurofibromas have been reported in the head and neck region, however they are uncommon in tonsil. To date, there are three reported cases of solitary neurofibroma of tonsil in the world literature. *Case report*: This is a 27-year-old Malay gentleman who presented with snoring and sleep apnoea for 5 years. On examination, there is a pedunculated cyst attached to the superior pole of left tonsil. His computed tomography of neck revealed a well-defined homogenous, non-enhancing lesion arising from left tonsil, suggestive of cystic mass with benign changes. Complete excision of the cyst and adenoidectomy were performed. The cyst measures 3.6x2.5cm with pale yellow myxoid surface. Microscopy shows a circumscribed and unencapsulated lesion composed of loosely arranged spindle-shaped cells with bland, elongated and wavy nuclei. The lesion is set in loose fibrillary background. The spindle cells show strong positivity for S100-protein. *Discussion*: Neurofibromas are slow-growing tumours with very low malignant transformation except when it is associated with Neurofibromatosis Type1. The solitary neurofibromas occur in patients who do not have neurofibromatosis. Clinical presentation of neurofibromas depends on the site of occurrence. Neurofibromas arising from tonsil can cause obstructive sleep apnoea. Neurofibroma must be differentiated from schwannoma; the latter is encapsulated and composed of Schwann cells. Presence of Verocay bodies is characteristic in schwannoma. *Conclusion*: The diagnosis of neurofibroma of the tonsil requires correlation of histopathology and radiologic examination. Complete excision is usually warranted to relieve symptoms.

CR58 Metastases of breast carcinoma to female genital tracts: A collection of three case reports

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Introduction: Breast carcinoma is the most commonly diagnosed cancer in females and often develop distant metastasis to bone, lung, liver and brain. Metastasis of extragenital cancer to the female genital tract is rare. We report 3 cases metastatic breast carcinoma to the female genital tract in Hospital Serdang. *Case report:* The cases were from 3 women aged 32, 51 and 55 years old respectively with a pre-existing diagnosis of invasive breast carcinoma. All 3 cases had different clinical presentation. The first patient had bilateral prophylactic salpingo-oopherectomy. Histopathological examination showed incidental metastatic carcinoma to a grossly normal left ovary. The second patient underwent a hysterectomy for uterine and broad ligament leiomyoma. Histopathological examination showed incidental metastatic lobular carcinoma within the leiomyomata. The third patient presented 4 years post mastectomy with post-menopausal bleeding and bilateral ovarian tumours. Histopathological examination showed metastatic carcinoma to both ovaries. Immunohistochemical studies were performed for all the cases and the tumour cells were positive for CK7 and GATA3. The cells were negative for CK20 and PAX8. *Discussion:* Distant metastasis is a frequent outcome of breast cancer. Metastases to the female genital tract although rare, usually show ovarian involvement when present. Studies have shown that invasive lobular carcinoma has a higher propensity for genital tract metastasis. The 3 cases presented show metastatic disease with histological similarity to the primary tumour supported by immunohistochemical studies. *Conclusion:* Metastases to female genital tract should be considered in breast cancer patients presenting with gynaecological signs and symptoms.

CR59 Sinonasal intestinal-type adenocarcinoma (ITAC): A case report

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Introduction: ITAC is a rare tumour of sinonasal tract with no case has been reported so far in Malaysia based on literature review. *Case report:* We present a case of a 61-year-old male presented with nasal mass at posterior choana. Patient underwent excision biopsy of the mass and subsequent histomorphological examination revealed neoplastic cells floating within abundant mucinous lakes/pools. The neoplastic cells displayed histomorphology similar to those seen in intestinal adenocarcinoma. *Discussion*: Adenocarcinoma involving the sinonasal tract is rare. Based on WHO Classification of Head and Neck Tumoursin 20I7, they were classified as intestinal (ITAC) and non-intestinal (non-ITAC) type. ITAC are more commonly affect men in their sixth to seventh decade of life. The incidence is more prevalence among workers in hardwood and shoe industry. Clinically, ITAC presented with unilateral nasal obstruction with the ethmoid sinuses being the commonest sites. ITAC exhibit morphological spectrum similar to that adenocarcinoma of intestines. They are mostly arranged in papillary and tubular configuration. Other histomorphologicalpatterns are nested, solid, cribriforming, mucinous and mixed. Grading system has been proposed depending on the pattern and degree of differentiation. Tumour with signet ring morphology behave most aggressively. *Conclusion*: ITAC should be considered in a differential diagnosis of a nasal mass especially in an elderly male with strong occupational exposure. It is a locally aggressive tumour with infiltration into the brain and orbits as well as bone are frequently reported.

CR60 Soft tissue perineurioma: A rare case of visceral location

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Introduction: Perineurioma is a rare tumour composed of neoplastic perineurial cells. Intraneural, soft tissue and mucosal perineuriomas have been described. While intraneural perineuriomas affect peripheral nerves of the extremities, soft tissue perineuriomas are located deep within soft tissue of the extremities without association to nerve, and visceral organs involvement are very rare. *Case report*: We report a rare case of bronchoalveolar perineurioma causing complete obstruction of the main bronchus with complementary lung collapse. The histomorphological features are those of a well-circumscribed tumour composed of spindle cells arranged in fascicles with presence low mitotic count and immunoreactivity to EMA and GLUT1. All surgical margins and pleura are clear from tumour. *Discussion*: There are very few reported cases of bronchoalveolar perineuriomas. This tumour is a benign neoplasm that has rare local recurrence and no metastases have been reported. *Conclusion:* Understanding the histomorphological and biological behaviours of perineuriomas aids in the differential diagnosis of spindle-cell visceral tumours and subsequently appropriate patient management.

CR61 Intracranial Rosai-Dorfman Disease mimicking meningioma: A case report

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lntroduction: Rosai-Dorfman Disease (RDD) is a benign lymphoproliferative disorder with unknown etiology. lt typically presents as massive cervical lymphadenopathy associated with fever and polyclonal hypergammaglobulinemia. Extranodal involvement is seen in one-fourth of the cases which practically all organ systems can be involved. Herein, we present a rare case of isolated intracranial RDD without any systemic manifestation. *Case report*: A 43-year-old lady was diagnosed with left parietal meningioma in year 2016 with the initial presentation of generalized tonic clonic seizure. Unfortunately, she defaulted follow up and presented with worsening headache and seizure in year 2020. Repeated MRI brain revealed enlarging left parietal extra-axial mass with mass effect and another new right parietal extra-axial mass. Subsequently, she underwent bilateral craniotomy and tumour debulking. Macroscopically both lesions were attached to dura and lobulated with solidwhitish cut surfaces. Microscopically, both lesions display multinodular architecture, composed of numerous histiocytes, lymphocytes and plasma cells. Emperipolesis with histiocytic engulfment of intact lymphocytes and plasma cells were seen. These histiocytes were immunopositive for 5100 and CD68; negative for CDla and EMA. She was discharge well and symptoms free till now. No recurrence of the disease or significant lymphadenopathy was detected during follow up. *Discussion*: lsolated intracranial RDD is rare, accounts for only 5% of all RDD cases. Despite being a benign condition with excellent prognosis, it may cause mass effect if not treated early. Conclusion: lntracranial RDD can simulate meningioma clinically. Awareness and consideration in the differential diagnoses of dural-based lesions is necessary for diagnosis and prognosis.

CR62 Soft tissue tumour in a child: A case report of a gigantic abdominal lipoblastoma

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Introduction: Lipoblastoma, a rare soft tissue tumour among paediatric patient, which may arise almost in any part of the body. The symptoms are varying depending on the location of the tumour and the compression effects to the adjacent structures. *Case report:* We herein report a case of two-year-old boy presented with abdominal distention accompanied by palpable abdominal mass. Radiological assessments revealed a huge lobulated intrabdominal mass with fat component. He underwent an exploratory laparotomy and revealing a huge 15 x 15 x 6 cm mass arising from small bowel mesentery. The mass was completely excised and histopathological report confirmed a diagnosis of lipoblastoma. He was discharged well and no evidence of recurrence on serial follow-up. *Discussion:* Although uncommon, lipoblastoma should be included in the differential diagnoses of paediatrictumour arising from retroperitoneal region. The histopathological assessment is the mainstay to achieve a definitive diagnosis. *Conclusion:* In conclusion, although lipoblastoma tend to progress to a huge size, the prognosis is excellent and best treated with complete surgical excision with recurrence rate.

CR63 Metastatic choriocarcinoma mimicry of a lung squamous cell carcinoma: A case report

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Introduction: Gestational choriocarcinoma is a highly aggressive triphasic form of gestational trophoblastic neoplasia that is composed of syncytiotrophoblasts, cytotrophoblasts, and intermediate trophoblasts with evidence of human chorionic gonadotropin β-subunit (β-hCG) production. Metastatic choriocarcinoma poses a potential diagnostic challenge when a single population of tumour cells is predominating especially in lung which might mimic features of non-small-cell carcinoma. *Case Report:*A 38-year-old lady presented with a right solitary lung lesion in 2015. She initially presented with per vaginal bleeding with persistently high of β-hCG level following her second miscarriage in the same year. Since then, she was treated as choriocarcinoma complicated with lung metastasis. In 2019, β-hCG levels were increasing with increased in size of right lung lesion. Due to that, CT guided lung biopsy was performed. Histologically, the tumour cells were polygonal and poorly differentiated. In areas, vague intercellular bridges and individual cell keratinization were identified. Immunohistochemistry study revealed diffuse tumour cells positivity for CK7 and P40, very focal positivity for β-hCG and SALL4 and negative for TTF-1. Syncytiotrophoblasts were not identified. *Discussion and Conclusion*: Metastatic choriocarcinoma is a diagnostic challenge in lung biopsies with limited tumour cells when all three types of cells, syncytiotrophoblasts, cytotrophoblasts, and intermediate trophoblasts are not present. Squamous cell carcinoma is a potential mimicker when the poorly differentiated tumour cells show diffuse immunohistochemical staining for CK7 and P40 which can be expressed in both tumour types. β-hCG and SALL4 are helpful markers to assist in the diagnosis choriocarcinoma with careful interpretation. Correlation with the history, radiological findings, and previous biopsies are very important.

CR64 Invasive breast carcinoma (NST) with medullary pattern: A case report

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Introduction: Medullary Breast Carcinoma (MBC) is now categorised under the spectrum of the tumour infiltrating lymphocyte (TIL) rich invasive breast carcinoma of no special type (IBC-NSTs) using the term IBC-NSTs with medullary pattern rather than a distinct subtype. *Case report:* We reported a case of IBC-NST with medullary pattern in a 63-year-old Malay woman. Grossly, it is composed of a lobulated circumscribed mass. Histopathological examination revealed characteristic features of (i) a circumscribed tumour with pushing margin, (ii) minimal tubular formation, (iii) high-grade nuclear features (iv) desmoplastic stroma with prominent lymphoplasmacytic cell infiltration. Estrogen Receptor (ER) was positive, while Progesterone Receptor (PR) and Her-2 were negative. The Ki-67 proliferative index was 70%. *Discussion:* MBC was grouped as IBC-NSTs with a medullary pattern in WHO Breast Tumours 2019. Lack of consensus among observers regarding the defining criteria that overlap with carcinoma with basal-like molecular profiles associated with the BRCA1 mutation is one of the factor. In addition, the excellent prognosis of TILs in high-grade cancers in not meeting the strict medullary criteria thus reduces the need for discrete separation of these tumours. Therefore, carcinomas with a medullary pattern represent one end of the spectrum of the TIL-rich IBC-NSTs rather than a distinct morphological subtype. Typically, IBC-NSTs with medullary features exhibit triple-negative hormonal status; however, this case displays ER-positive staining consistent with some reported studies. *Conclusion:* Awareness and attention for definite diagnosis of new classification from MBC to IBC-NSTs with medullary pattern are important due to the difference in management and prognosis.

CR65 Paediatric bullous cutaneous mastocytosis: A rare presentation

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Introduction: Mastocytosis is a group of rare disease with numerous variants characterised by proliferation of mast cells in the skin or other organs such as bone marrow, liver, spleen, lymph nodes and gastrointestinal tract. An infant presenting with bullous lesion is a rare clinical manifestation of cutaneous mastocytosis. *Case report:* We illustrate a case of a 4-month-old girl who developed a bullous skin lesion on the left forearm since 2 months of age. It was treated as an insect bite with topical antibiotic and responded initially. However, the papule started to enlarge with blisters developing at the periphery fortnightly. Darrier's sign was negative. Skin biopsy showed sheets of tryptase and CD117 positive mast cells. The cells were positive for Giemsa and negative by immunofluorescence for antibody deposition. This confirms diagnosis of cutaneous mastocytosis. *Discussion:* Paediatricmastocytosisis commonly diagnosed prior to 2 years of age and predominantly consist of cutaneous disease, with urticaria pigmentosa as the most common presentation. Due to its rarity and self-limiting nature, it is difficult to determine the incidence of cutaneous mastocytosis. Some authors have extrapolated a frequency of about 5-10 new cases per million

populations. Bullous mastocytosis is a rarer form of cutaneous mastocytosis. with approximately 30% cases manifesting within 6 months of age. The overall incidence is <1% of all mastocytosis cases. *Conclusion:* This case report highlights the importance of recognizing bullous cutaneous mastocytosis in the differential diagnosis of paediatric bullous disease. Histopathological, immunohistochemical and molecular evaluations are essential for diagnosis.

CR66 Complex papillary metaplasia in a patient receiving Mirena: A case report

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Introduction: Endometrial papillary metaplasia is a non-neoplastic proliferation of columnar epithelial cells that may show simple or complex papillary structures. Mirena coil is an intrauterine device containing progestogen. It has been widely used in treating uterine bleeding or endometrial hyperplasia. *Case report***:** A 35-year-old nulliparous lady was diagnosed with endometrial hyperplasia with no atypia. She was treated with Mirena coil for almost 3 years. Follow-up hysteroscopy shows patchy areas of minimal endometrial thickening with papillary-like structures at the body of the uterus. Endometrial curettage was performed. The histopathological examination revealed papillary architecture displaying arborizing branches covered by bland columnar epithelium. There is no nuclear atypia, residual endometrial hyperplasia, or malignancy. *Discussion***:** Papillary metaplasia was reported in patients receiving Mirena. Our patient shows complex papillary metaplasia in contrast to previous publication that documented simple papillary formations. Complex papillary architecture could be mistaken for well-differentiated or low-grade adenocarcinoma. Absence of nuclear atypia together with hysteroscopically benign appearance conclude the papillary metaplasia. *Conclusion:* This case represents a rare complex papillary metaplasia associated with Mirena use. It also illustrates the importance of clinicopathological correlation for an accurate diagnosis.

CR67 Granulomatosis with polyangiitis (GPA) presenting as renal mass lesion: A case report

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Introduction: Granulomatosis with polyangiitis (GPA) is granulomatous inflammation of respiratory tract and necrotizing vasculitis of small to medium-sized vessels with necrotizing pauci-immune glomerulonephritis. Rarely, renal–limited vasculitis manifest in the absence of respiratory symptoms. *Case Report:* We present a case of 39-year-old female with underlying chronic kidney disease, stage 5 planned for renal transplant. Patient did not manifest any symptoms relatable to other systems. Radiological investigations performed as part of transplant workup, revealed right upper and mid-pole solid renal lesion with renal cyst. Subsequently, patient underwent right nephrectomy. Macroscopically, the kidney measured 100x60x30mm with lobulated and irregular scarred cortical surface. Cut section shows homogenous brownish, thick renal parenchyma with ill-defined corticomedullary junction. However, no definite mass was recognized. Microscopy revealed pauci-immune necrotising glomerulonephritis with florid granulomatous vasculitis involving small to medium vessels. Sparse eosinophils seen. There are 30%global glomerulosclerosis with ischaemic changes. The cytoplasmic antineutrophilic antibody (c-ANCA) serology test was negative. In the light of clinical and histopathological features, the diagnosis was established as GPA. *Discussion*: GPA can develop at any age with slight male predominance. The symptoms vary due to multisystemic involvement. GPA is regarded as ANCA-associated vasculitis (AAV), specifically autoantibodies to proteinase 3 (PR3) in 75% of cases. However ANCA-negativity does not exclude GPA. Histological findings in renal commonly manifest with necrotising pauci-immune glomerulonephritis. *Conclusion:* GPA is a potential relapsing disease with systemic evolvement. Untreated GPA has higher mortality rate. Although a rare presentation, GPA should be included in the differential diagnosis of renal mass-like lesion.

CR68 Double Whammy: Recurrent mucinous borderline ovarian tumour during pregnancy

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Introduction: Borderline ovarian tumour (BOT) is an infrequent diagnosis in pregnant women. Mucinous BOT arising within a mature cystic teratoma in pregnancy that relapses a few months later is even rarer. We present a case of recurrent mucinous borderline ovarian tumour (BOT) occurring within a single pregnancy span requiring operative intervention. *Case Report*: A 39-year-old para 2 underwent laparotomy cystectomy for an incidental right ovarian cyst at 17 weeks. Intraoperatively, the mass measured 20cm, multiloculated with one solid locule present. Histopathological examination confirmed mucinous BOT, arising within a mature cystic teratoma. The patient re-presented at 31 weeks with sudden onset right abdominal pain. She underwent laparotomy and right salphingo-oophorectomy for an 8cm right ruptured ovarian cyst. Final diagnosis was recurrent mucinous BOT, stage I. She delivered at 39 weeks via normal delivery and no recurrence detected at 6 months post-delivery. *Discussion*: Mucinous BOTs are typically found in women of childbearing age, usually unilateral and can arise within a teratoma. BOTs have excellent prognosis due to being Stage I at diagnosis but with notable recurrence rate. Recurrence have been linked with

previous cystectomy, presence of adhesions, histological features of micropapillary pattern, implants and microinvasion. There is no standard surgical procedure established for BOTs in pregnancy. Deferring operative management at birth or after birth with intermediary radiological surveillance is deemed a safe option in cases of uncomplicated relapse of BOT during pregnancy. *Conclusion:* BOTs in pregnancy require tertiary care center management as prompt diagnosis could influence obstetric care measures such as radiological surveillance and type of surgery.

CR69 Double pathology: The occurrence of serous cystadenoma in polycystic ovary

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Introduction: Ovarian serous cystadenoma is a benign epithelial neoplasm with an excellent prognosis. Polycysticovary (PCO) is considered as a variant of normal ovary characterised by the presence of multiple immature ovarian follicles, whereas polycystic ovarian syndrome (PCOS) is associated with hyperandrogenism and oligoanovulation. Both share similar histology, and patients generally need no surgery. *Case report:* We herein report a case of serous cystadenoma in polycystic ovary of a sexually inactive 25-year-old lady. She presented with mass per abdomen. Right oophorectomy and left cystectomy was done due to suspicion for a malignant epithelial neoplasm as radiology showed a solid cystic right ovarian tumour and left ovarian cyst. Grossly, the right ovary was enlarged with a solid cystic cut surface and presence of many follicles measuring 2 to 5mm in diameter. An adjacent thin wall unilocular cyst measuring 40mm in the largest dimension was noted. The left ovary also showed a thin wall unilocular cyst. Microscopically, the right ovary exhibited numerous immature ovarian follicles (>25) in various stages of development with no corpus luteum or corpus albicans. The adjacent ovarian stroma displayed fibrosis and stromal hyperplasia. Both ovaries showed serous cystadenoma lined by tubal epithelium with no complex papillary architecture, epithelial proliferation, or overt atypia. *Discussion:* To the best of our knowledge, the coexistence of PCO with serous cystadenoma has never been documented. No literature reports the association of PCO with increased risk of ovarian epithelial neoplasm. Therefore, association of PCO with serous cystadenoma is undetermined and unexampled. *Conclusion:* Both serous cystadenoma and polycystic ovary is a benign condition. This case report provides an unprecedented example and underscore the unique and intriguing coexistence of two benign conditions.

CR70 The unsuspected case of intrarenal teratoma

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Introduction: Intrarenal teratoma is a rare occurrence of neoplasms that derived from embryonic germ lines. Around the world, less than 50 cases were reported since 1934. These neoplasms are usually seen in the genital tracts and usually found along the midline. We describe a case of this entity, which we believed that have not seen for a long time since first reported in Malaysia more than ten years ago. *Case Presentation*: A 2-year-old Malay girl presented with history of a right duplex kidney with obstructed upper moiety. She subsequently undergone right heminephrectomy. Histologically the wall of the removed upper moiety, with greyish sac like appearance, was made of fibrous tissue with areas of mature glial cells, scattered ganglion cells in a fibrillary background, mature bony tissue, and skin tissue with cystic formation containing laminated keratin. By immunohistochemistry study, the glial cells are expressed GFAP, Synaptophysin and S100. *Discussion:* Teratomas are generally solid and avascular but when cystic, may sometimes be confused with cystic lesions of the kidney. Exclusion from metastasis from a gonadal primary tumour also must be made. *Conclusion/Learning points*: Mature teratomas are usually benign, but they have the potential for malignant transformation. Follow-up data after surgical removal for intrarenal teratomas in children are limited. Regular long-term follow-up examinations may benefit the patient management.

CR71 Epithelial-Myoepithelial Carcinoma of parotid gland: A rare and difficult malignant tumour with cytological and histological challenge

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Introduction: Epithelial-Myoepithelial Carcinoma (EMC) is a rare salivary gland tumour, accounting for <5% of all malignant salivary gland tumours. It commonly arises in parotid. However, it has been described in submandibular glands, minor salivary glands and extra-oral sites. It tends to behave in a more indolent fashion, but local recurrent is not uncommon. *Case report*: We present the case of a 70-year-old man who presented with right parotid swelling associated with difficulty in chewing food. CT neck revealed a tumour of the right parotid gland, involving superficial and deep lobes. Fine needle aspiration cytology (FNAC) investigation was misinterpreted as pleomorphic adenoma. He underwent right parotidectomy, unfortunately the excision was incomplete due to complications during surgery. Grossly, the lobulated tumour was partly encapsulated with the tan brownish surface. Microscopically, the tumour is composed of smaller cuboidal luminal cells and larger polygonal abluminal cells surrounded by fibrohyalinized stroma. Perineural and vascular permeation were present. The immunohistochemistry highlighted

the biphasic cells pattern of the tumour. A diagnosis of epithelial-myoepithelial carcinoma was rendered. *Discussion*: The cytomorphological features of EMC are described in exactly some cases with documented difficulties in diagnosis because the overlapping spectrum of cytological features found in other biphasic salivary gland tumour. *Conclusion*: Though EMC is taken into account to be a low-grade malignant tumour, it mustn't be missed, to forestall under treatment which can cause recurrence and may reduce the survival rate in such patients.

CR72 Intestinal mucormycosis: A case series

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Introduction: Mucormycosis is a rare invasive fungal infection and frequently affect immunocompromised host. It is caused by fungi of the order Mucorales commonly *Rhizopus* or *Mucor species*. Mucormycosis can affect any organ system. Nasal sinuses, orbit, and rhino-orbital-cerebral and lung are generally common. Gastrointestinal (GI) mucormycosis is rare and often associated with fatal outcome. *Case report:* These is a case series of three cases who presented with abdominal symptoms and lower gastrointestinal bleeding. Two cases were middle age, who had diabetes mellitus and end stage renal failure. The 3rd case was young men with no known medical illness. Colectomy specimen revealed multiple ulcers and perforation. Histological findings showed mucosal ulcers and perforation with invasive fungal element exhibits broad ribbon-like pauci septate hyphae branching at various angles. Angioinvasion were noted. All cases are confirmed with polymerase chain reaction (PCR) reported as *Rhizopus spp*. All patient died within three days postoperatively. *Discussion*: GI mucomycosis is rare and often missed clinically. Clinical presentation of GI mucormycosis is non-specific with symptoms ranging from abdominal discomfort, diarrhoea, perforation and bleeding. Mucormycosis invades the GI mucosa and submucosa and classically causes thrombosis of vessels leading to necrosis and mucosal ulcers. Some cases may mimic malignancy. Diagnosis is usually confirmed with histology findings of broad ribbon-like pauci septate hyphae with angioinvasion or fungal culture. *Conclusion*: High-index of suspicion for unusual opportunistic infections is important as cause of GI bleed in immunocompromised patients. Early diagnosis and treatment is important for prompt management and improved outcome.

CR73 A case of AIDS-related Kaposi sarcoma with extensive gastrointestinal involvement

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Introduction: Kaposi sarcoma (KS) is a rare, indolent but locally aggressive vascular malignancy associated with human herpesvirus-8 (HHV-8) infection. We present a case of unsuspected AIDS-related KS (AKS) with extensive gastrointestinal involvement. *Case Report*: A 33-year-old Chinese man with underlying Human Immunodeficiency Virus (HIV) and Cytomegalovirus infection presented with chronic diarrhoea. He was non-compliant to his Highly Active Antiretroviral Therapy (HAART). Stool workup was negative. Oesophagogastroduodenoscopy and colonoscopy revealed inflammatory changes in the stomach, duodenum, colon, and rectum. Multiple biopsies were taken throughout the gastrointestinal tract. Microscopically, all biopsies except for stomach antrum showed spindle cell proliferation in the lamina propria, arranged in vague fascicles separated by slit-like vessels with extravasated erythrocytes. The spindle cells showed mild to moderate atypia. Cytoplasmic PAS-positive, diastase-resistant hyaline globules were present. Immunohistochemistry (IHC) for HHV-8 and CD34 were positive while S100, desmin and DOG-1 were negative. These findings are consistent with KS. *Discussion*: AKS usually manifests as cutaneous lesions however visceral lesions may occur. While typically asymptomatic, patients with gastrointestinal KS may present with gastrointestinal bleeding, abdominal pain, weight loss, nausea, vomiting, malabsorption, or diarrhoea. The differential diagnoses of gastrointestinal AKS includes other spindle cell proliferation such as gastrointestinal stromal tumours, leiomyomas, melanomas, and reactive proliferations, which can be confidently excluded by IHC, as in this case. *Conclusion*: Gastrointestinal AKS is associated with poor prognosis. As many cases are unsuspected clinically, a high index of suspicion and judicious use of IHC increase the likelihood of early diagnosis and aid subsequent patient management.

CR74 A rare case of intracranial teratoma

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Introduction: Intracranial teratoma is a very rare tumour in adult, comprising approximately 0.3%–0.6% of all primary intracranial tumours. It is a subtype of germ cell tumour which can be classified into mature, immature or with malignant transformation. *Case report:* We reported a case of a 38- year- old male who presented with sudden onset of recurrent seizure associated with headache. Patient also had right eye strabismus since the past 4 years. Magnetic resonance imaging (MRI) of brain revealed

a large right frontotemporal lesion causing midline shift and hydrocephalus. The lesion showed heterogenous enhancement with presence of solid area and microcalcification. He underwent right craniotomy and tumour excision where intraoperative finding revealed capsulated mass containing cheesy material admixed with hair. The histopathology examinationwas consistent with mature teratoma. Post-operatively, patient was slowly recovering while being started on intensive rehabilitation therapy. *Discussion*: Clinical presentation of intracranial teratoma is non-specific as with any other space occupying lesions. Histologically, teratoma is characterised by presence of tissue derived from two or three germinal layers, which include ectoderm, endoderm and mesoderm. Thorough histological examination should be made to find any immature component or malignant transformation that may be presence in this tumour. *Conclusion*: Accurate diagnosis should be obtained viacomprehensive analysis of the presenting complaints, correlating with radiological imaging and histopathological examination, in order to provide patient withproper management.

CR75 Is it an ectopic thymoma?

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Introduction: Thymomas are benign tumour that arise from the epithelial cells of the thymus within the anterior mediastinum. The World Health Organisation classified thymomas into types A and B. This is a case of thymoma diagnosed from biopsy of a lung lesion. *Case Report*A 63-year-old-man presented with pneumonia and respiratory failure in 2017. CT thorax identified a well-defined mass in the left lower lung, and its biopsy was inconclusive due to limited tissue. He then, lost to follow up. He represented in March 2021, with short of breath, chronic cough for 3 years, weight loss and mild hepatomegaly. Chest radiograph showed consolidation at the left lower zone. Clinical impression was lung cancer stage 4 with a newly diagnosed retroviral disease. Patient had ultrasound guided biopsy of the lung lesion. The histopathology report was thymoma type AB based on the microscopic features composed mixture of epithelium (CKAE1/AE3+) and lymphocyte (CD3+ and Tdt+) components. The patient's follow up plan is for a repeat CT thorax. *Discussion:* Thymoma is not known to originate from lung parenchyma. In this case, the initial clinical impression was lung carcinoma, however the tissue biopsy proved otherwise. Hence it explained the patient's stable condition since 2017. Thymoma type AB is usually benign and mostly in stage 1. *Conclusion:* Thymoma is a diagnostic challenge when there is a limited tissue biopsy, and it requires an extensive immunohistochemistry staining before the final decision. Furthermore, in this case, the location of the lesion is far from mediastinum, hence adding to the diagnostic challenge.

CR76 Synovial sarcoma of the right atrium: A case report

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Introduction: The occurrence of Synovial Sarcoma (SS) within the heart is rare. Herein we report a case of right atrial SS, highlighting the diagnostic challenges. *Case report:* A 46-year-old Malay man presented with sudden presyncopal attacks and reduced effort tolerance for one month. Echocardiography and cardiac MRI revealed a pedunculated mass within the right atrium measuring 9.8 cm in diameter. Intraoperatively, the mass appeared soft and glistening, arising from the space between the tricuspid valve septal leaflet and the coronary sinus. Incomplete resection was performed in view of tumour invasion into the interventricular septum. Microscopically, the mass is composed of hypercellular spindle cells, arranged in short fascicles and sheets with pericytomatous vascular pattern. Mitoses are 21 per $2mm^2$. Area of necrosis is seen. There is no glandular formation. Immunohistochemistry showed diffuse strong positive staining with TLE1 (99%) and focal CK7, Pancytokeratin and EMA positivity. CD34 and CK20 were negative. FISH study showed SS18 gene rearrangement. *Discussion:* Monomorphic SS poses diagnostic difficulty particularly at unusual locations. It can mimic other morphologically similar tumours. Thus, ancillary testing is essential for accurate diagnosis. Prognostic factors, grading systems and the use of newer markers such as CXCR4, IGF-1R, H3K27me3 and VEGF are important in determining the survival rate. Research on novel therapies are ongoing and some have promising results. This would be beneficial particularly for inoperable cases. *Conclusion:* Monophasic SS is uncommon within the heart, thus accurate diagnosis with proper ancillary testing is essential. Novel markers and treatment may improve the survival rate.

CR77 Epithelioid glioblastoma: A rare and aggressive variant of glioblastoma

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Introduction: Epithelioid glioblastoma is a rare, aggressive tumour introduced in World Health Organization classification of the Central Nervous System in 2016. It has dismal prognosis and frequent leptomeningeal dissemination. Early progression despite various adjuvant therapies is frequent. *Case report:* An 8-year-old girl presented with raised intracranial pressure symptoms and focal status epilepticus. MRI brain showed solid-cystic tumour with predominant solid component, suggestive of high gradetumour. Left temporal craniotomy and tumour excision was performed, showing greyish tumour admixed with haemorrhage. Microscopically, the tumour shows sheet of markedly pleomorphic epithelioid cells having peripherally located, hyperchromaticnuclei, prominent nucleoliand ample amount eosinophilic cytoplasm. Mitotic figures is abundant with high Ki67 (80-90%). Tumour necrosis is extensive. Immunohistochemical stain show focaltumourpositivity for GFAP, synaptophysin, EMA and negative for S100 and SOX10. BRAF V600E was negative. Chemotherapy was given and reassessment MRI shows enlarging residual tumour with intraventricular nodules in left ventricle in keeping with CSF seeding. *Discussion:* Epithelioid glioblastoma is defined as high-grade diffuse astrocytic tumour variant with a dominant population of closely packed epithelioid cells, some rhabdoid cells, mitotic activity, microvascular proliferation, and necrosis. Epithelioid glioblastoma with BRAF V600E mutation has potential therapy with BRAF inhibitor, Early identification and treatment of this lesion may improve overall patient outcomes. *Conclusion*: It very important to identify this aggressive entity from other CNS tumour with epithelioid morphology associated with BRAF V600E mutation which includes metastatic melanoma, pleomorphic xanthoastrocytoma. In summary, clinical, radiological and histopathological examination along with immunohistochemistry study are crucial for accurate diagnosis.

CR78 Foamy gland adenocarcinoma of prostate

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Introduction: Prostatic adenocarcinoma (PA) is one of the cancer burdens in Malaysia. In 2018, the prostate cancer incidence is 4.1%, 1 in 8 men will be diagnosed with PA during their lifetime. Many histological variants of PA have been documented. We report a case of PA with a rare variant mimicking a benign entity. *Case report*: A 70-year-old man presented with an elevated serum Prostate specific antigen (PSA). Prostate biopsy was performed and reported as Prostate adenocarcinoma, Gleason 6 with foamy variant. He underwent a radical prostatectomy. The specimen composed of the prostate, peri prostatic fat and seminal vesicles. The prostate weighed 42 grams and measured 40x50x34mm. Microscopy demonstrated a voluminous tumour comprising malignant cells forming fused glandular structure (pattern 4) in 65% of the tumour bulk. Acinar pattern is seen in the remaining 35%. The tumour cells exhibit abundant foamy cytoplasm with small hyperchromatic nuclei. Perineural invasion was seen. There was no involvement of the extraprostatic tissue, seminal vesicle or vas deferens. Immunohistochemistry stains for AMACR and PSA were positive while CD68 was negative. *Discussion*: The foamy variant of PA is rare. This foamy appearance is due to the presence of intracytoplasmic vesicles. They may be mistaken for foamy macrophages found in inflammatory reactions, especially in biopsy samples. This seemingly benign feature disguises an aggressive tumour, associated with large volume and extraprostatic extension. *Conclusion*: Since foamy variant PA mimics a benign entity, a high index of suspicion and judicious use of immunohistochemistry increase the likelihood for accurate diagnosis.

CR79 Vulval extraskeletalmyxoid chondrosarcoma: A case report

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Introduction: Extraskeletalmyxoid chondrosarcoma(EMC)is uncommon and accounts less than 3% of all soft tissue sarcomas. It is usually presented with a slow-growing, deep-seated mass that causes pain and tendernessranging from weeks to several years during fifth or sixth decade of life. Here in we present an unusual case of EMC at vulva region. *Case report*: This is a case of a 62-year-old lady presented with right vulva mass for 1 year which is progressively increasing in size; associated with pain. Clinically, thetumour extends from upper part of vulva to the mons pubis. Grossly, the mass is attached focally withulcerated skin, measures 120x80x80 mm. Cut section shows soft to firm, fairly circumscribed lesion displaying firm glistening,myxoid cut surface with hemorrhagic foci. Microscopically, the lesion is nodular seen in lobules separated by thick fibrous septae. The lobules have varying cellularity composed of cords and small clusters of spindle to epithelioid cells embedded in abundant chondromyxoid stroma. A focus of tumour infiltration into the dermis is observed. The neoplastic cells are immunoreactive towards oestrogen receptor and cyclin-D1; negative for SMA, Desmin, CD34, S100 and PR. Due to pandemic COVID-19, the follow up for this patient was postponed. *Discussion*: Recurrence and metastatic disease of EMC are common. Complete surgical resectioncan be curative with estimated 5-year survival rates were 90%. Despite the local aggressiveness and prolonged survival rate, it is considered a low-grade sarcoma or intermediate malignancy. Thus, close observation and follow up are needed for better outcome.

CR80 Male inflammatory breast cancer: A case report

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Introduction: Inflammatory breast cancer in male is exceptionally rare. In English literature, there are only 13 reported cases. It has poor prognosis. *Case report:* A 48 years old man with no underlying illness, complaint of right anterior chest swelling and skin redness for 2 weeks. On examination, there was oedema, induration and tenderness over right anterior chest extending to right neck and right upper limb. He was started on antibiotic with no improvement. CT scan report suggestive of infective/ inflammatory changes. No mass seen. Microscopic findings of skin biopsy show presence of malignant cells in cords and irregular clusters with desmoplastic reaction. The cells exhibit moderate pleomorphism. Mitosis is present. No dermal lymphatic emboli noted. Immunohistochemical stains show the malignant cells were positive for CKAE1/3, CK7, MammaglobinGCDFP-15 and BerEP4.CK20, TTF1, Napsin A, CEA were negative. Diagnosis was made after a clinicopathological conference. The oncology team planned for chemotherapy every 3 weeks for 6 cycles. However, after his second cycle he developed neutropenic sepsis and succumbed. *Discussion:* The diagnosis of inflammatory breast cancer needs a clinical and pathological correlation. The disease has abrupt onset, developed less than 6 months with erythema involving more than a third of the breast. The pathognomonic histopathological finding is dermal lymphatic invasion. However, this findingis not required to establish a diagnosis. *Conclusion***:** Given its rarity and unusual presentation, diagnosing inflammatory breast cancer in male is challenging and often delay. Early recognition of the disease is key to provide better management of the disease.

CR81 The primary leiomyosarcoma of kidney

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Introduction: Leiomyosarcoma is the most common malignant soft tissue tumour of kidney despite it being rarely reported. Classically presented with triad of symptoms which are flank pain, hematuria, and abdominal mass mimicking the more common renal cell carcinoma (RCC). We describe a 59-year-old male who presented with painless hematuria for 3 months and suspected to have RCC.*Case Presentation:* A 59-year-old male who presented with painless hematuria for 3 months. Imaging shows a large ball-like left renal mass invading pararenal spaces with left renal vein thrombosis. He had radical nephrectomy. Grossly the mass is heterogeneously ill-defined occupying the entire renal parenchyma infiltrating into pelvicalyceal system, sinus and perinephric fat with involvement of Gerota's fascia. Tumour thrombus is observed. Microscopically, spindle cells arrange in long fascicles with abundant mitosis and extensive necrosis are present. They are immunoreactive to SMA strongly and weak focal to h-Caldesmon while CK, CD117, Desmin and CD34 are negative. The patient recover well post-operatively, however, recurrence occur 3 months later. *Discussion:* Preoperative diagnosis can be difficult due to non-specific symptoms and potential differentials in imaging. Pathologically, this tumour mimics the sarcomatoid variety of RCC. Immunohistochemical staining helps to differentiate between these two tumours. It can be diagnostically challenging task when the tumour is poorly differentiated and lack of immunoreactivity. *Conclusion/Learning points:* Radical nephrectomy is the standard treatment for primary renal leiomyosarcoma. Other modalities are still controversial. Leiomyosarcomas have a poor prognosis.

CR82 The illusive case of intertubular seminoma in an undescended testis

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Introduction: Exclusive intertubular growth is not widely reported despite seminoma is the most common testicular germ cell tumour. It poses a diagnostic challenge and may be overlooked due to its nature. We present such a case of seminoma which was clinically and grossly inconspicuous and showed a predominant intertubular growth pattern. *Case Presentation*: A 29-year-old gentlemen with incidental undescended testis, diagnosed during investigation for left scrotal inguinal hernia. Imaging shows an intrabdominal testis located within the retrovesical pouch. Patient subsequently undergone his herniation repair and removal of the testis. Patient recovers well post-surgery. Grossly, no overt lesional area noted with homogenous tan surface. Histologically atrophic seminiferous tubules with the in-between interstitium infiltrated by clusters and sheets of neoplastic cells. The cells are positive for PLAP and C-KIT. Focal GCNIS and lymphocytes aggregates are present. *Discussion:* Intertubular growth pattern, commonly seen at the periphery of mass-forming seminoma, is an important prognostic factor. However, exclusive intertubular growth pattern is a rare variant. Awareness of this morphological pattern and careful microscopic examination is the only way to detect this ambiguous growth pattern. A clue of lymphoid infiltrate in the setting of fibrosis and atrophy should prompt a diligent search for invasive tumour. *Conclusion/Learning points:* Seminoma with exclusively intertubular growth pattern is a variant of seminoma seemingly to have behavior comparable to classic seminoma. This growth pattern was suggested to represent a more aggressive variant.

CR83 A rare case of uterine liposarcoma: A case report and literature review

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Introduction: Primary uterine sarcomas especially of lipomatous differentiation are a rare entity. Of those encountered, mostly are arise de novo. Malignant transformation from benign precursor is an extremely uncommon, with only a few cases of liposarcoma arising from lipoleiomyoma been reported. *Case Presentation***:** A case of 62-year-old, grandmultiparous, postmenopausal woman, who presented to Hospital Tengku AmpuanAfzan with progressive painless abdominal distension associated with bladder and bowel compressive symptoms. CT pelvic is consistent with uterine lipoleiomyoma with differentials of lipoleiomyosarcoma and cystic degeneration of uterine teratoma. Total abdominal hysterectomy with bilateral salphingo-oopherectomy was performed. Gross examination of the specimen showed a well-circumscribed posterior uterine wall mass with homogenous yellowish cut surface. Histopathology examination proved liposarcoma revealing a circumscribed intramural lesion composed of variable sizes adipocytic proliferation admixed with lipoblasts, atypical stromal cells and occasional entrapped benign smooth muscle fibres. *Discussion:* The unusual localization of uterine liposarcoma may induce diagnostic challenge. Correlation between clinical, radiological and pathological features is a must. Differentiation between benign lipoleiomyoma with well differentiated liposarcoma is crucial, with the malignant counterpart should always be considered especially in older age group. Differentiation between de novo uterine liposarcoma and those occur as a result of malignant transformation from benign precursor may be challenging. Thorough sampling of the lesion and ancillary test might be helpful in differentiating these two. *Conclusion:* Primary uterine liposarcoma is extremely rare and most of the cases arise from malignant transformation of long-standing benign precursor. The diagnosis should always be included in the differentials especially in elderly.

CR84 A rare case of sinonasal extraosseous plasmacytoma

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Introduction: Extraosseous (extramedullary) plasmacytoma (EMP) is characterised by the proliferation of monoclonal plasma cells forming a mass with extraosseous (extramedullary) presentation, in the absence of underlying multiple myeloma. It is a rare malignant plasma cell tumour, accounting for <1% of all head and neck malignancies. It typically presents as a solitary lesion and about 80% of cases involving the respiratory tract, most commonly at the nasal cavity and paranasal sinuses. *Case report*: We present the case of a 63-year-old man who presented with unilateral nasal block and epistaxis for 1 year. Rigid nasoendoscope showed a vascularized mass of the left nostril. CT Paranasal sinuses revealed soft tissue lesion at the left nasal cavity, extending posteriorly to middle meatus and anterosuperiorly into the left anterior superior ethmoidal sinus. Nasal excision biopsy was done and the result was reported as plasma cell neoplasm, with the comment of differential diagnosis of multiple myeloma need to be considered. Bone marrow aspirate and trephine, skeletal survey, and serum and urine electrophoretic were performed and finally, the case was concluded as EMP. He completed radiotherapy and showed no evidence of recurrence after 2 months of follow-up. *Discussion*: A diagnosis of solitary EMP was made based on clinical, radiographic, negative investigations on multiple myeloma and histopathological evaluation. *Conclusion*: Despite its rarity, EMP should be considered in the differential diagnosis ofsinonasal mass. Early diagnosis is crucial and it requires multidisciplinary participation and long term follow-up as there is a possibility to progress to multiple myeloma.

CR85 Getting irritated with irritative scrotum: A rare presentation of extramammary Paget disease

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Introduction: Extramammary Paget disease (EMPD) is a rare intraepithelial adenocarcinoma and can be classified into primary or secondary. EMPD arises in areas rich in apocrine glands, including scrotum. *Case report*: This is a case of an 80-year-old man presented with irritative left scrotal skin redness for a duration of three years and is associated with intermittent pain. Skin examination revealed a wide spread erythema over the left scrotum and inner thigh with presence of two nodules. Biopsy reported as EMPD. Contrast enhanced computer tomography (CECT) of thorax, abdomen and pelvic was performed. However, no other suspicious malignant lesions noted except for enlarged prostate. Total prostate specific antigen was within normal range. Diagnosis of primary EMPD was established and patient was referred to a tertiary hospital for wide local excision. *Discussion*: The clinical presentation of EMPD varies, non-specific and slow growing in nature. This lesion is often mistaken as inflammatory dermatosis. *Conclusion*: Due to its rarity, EMPD should raise high degree index of suspicion clinically and histologically for chronic skin lesion present in perianal area. Further investigation is deemed necessary to ascertain primary or secondary EMPD and thus, determine the proper therapy.

CR86 Primary squamous cell carcinoma of the prostate: A case report and literature review

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Introduction: Carcinoma of prostate gland is the most frequent malignant tumour affecting male population with large majority of the tumours is represented by adenocarcinoma. Pure squamous cell carcinoma of the prostate is a rare tumour, making up of 0.5% to 1% of all prostate carcinoma. *Case presentation*: We report a case of primary squamous cell carcinoma involving the prostate in a 60-year-old man with background history of Non-functioning right kidney secondary to staghorn calculi, hypertension and chronic kidney disease stage V. Incidental findings noted multiple cannon-ball lesions in the lungs. Further investigation of CECT of the thorax, abdomen and pelvis was done and revealed features of advanced prostate cancer involving prostate cancer involving bone, lung and intraabdominal lymph nodes metastases. Biopsy of the prostate proved to be squamous cell carcinoma. *Discussion*: Primary squamous cell carcinoma (PSCC) of the prostate glands is an extremely rare pathological and clinical entity. In general, the PSCC tumours present similarly to usual prostatic carcinoma. In pure tumours, PSA and PAP are usually not elevated. Squamous cell carcinoma of the prostate has a worse prognosis than conventional adenocarcinoma with an average survival after diagnosis of 1 to 24 months. Therapeutic modalities are limited, and surgery or non operative methods of treatment (radiation, chemotherapy or hormonal therapy) proved to be ineffective. *Conclusion*: Squamous cell carcinoma of prostate is a highly aggressive tumour with low survival rate because it responds poorly to treatment. It is commonly metastases to bone, liver and lungs.

CR87 Warthin like variant - papillary carcinoma: A rare entity of PTC

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Introduction: Warthin like variant - papillary thyroid carcinoma (PTC) is one of the histological variant that is rarely reported, accounting for 0.06 - 1.9% of all papillary thyroid carcinoma. It is characterised by distinct histomorphological features resembling warthintumour of salivary gland with a favorable prognosis. It is frequently associated with Hashimoto thyroiditis. *Case report*: Here, we present a case of warthin like variant- papillary thyroid carcinoma in a 58 years old lady, who presented with painless anterior neck swelling since 3 years. She had done ultrasound of neck which shows right thyroid complex cyst. Her FNAC showed cyst fluid only. Subsequently, she underwent right hemithyroidectomy. Macroscopically, there is a single lesion seen at the inferolateral right lobe measuring 40x30x10 mm. It exhibits cystic space with papillary lesion within it. Microscopically, the lesion is composed of neoplastic follicular cells, predominantly arranged in papillary architecture separated by fibrohyaline stroma with heavy lymphocytic infiltrations forming lymphoid follicles with prominent germinal centers, giving an appearance reminiscent of Warthin tumour. These neoplastic cells are large with nuclear crowding and irregular nuclear membrane with optically clear nuclei. Due to pandemic COVID-19, the follow up for this patient was postponed. *Discussion*: Warthin like variant-PTC is a rare variant of papillary thyroid carcinoma, which share histological features similar with Warthin tumour, hence its name. The diagnosis relies on its salient histomorphological features rather than immunohistochemistry. *Conclusion*: Warthin like variant – PTC is a rare distinct entity of PTC . The prognosis is similar to that of conventional PTC of similar size and stage.

CR88 Spitz tumour with ALK rearrangement in an Asian child

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Introduction: Spitz tumour with ALK rearrangement is a recently described entity with characteristic morphology, immunohistochemical profile and molecular findings. *Case report:* An eleven-year-old Asian boy presented with a left shin nodule of two months duration. A Spitz tumour with predominantly spindle cell morphology arranged in fascicles, vertically oriented nests, and radial pattern was observed in the skin biopsy. There were absent of junctional component, melanin pigment, or Kamino bodies. ALK immunohistochemistry (IHC) revealed homogeneous cytoplasmic staining without nucleus positivity. Fluorescence in-situ hybridization (FISH) analysis confirmed ALK rearrangement. *Discussion*: Spitz tumour with ALK rearrangement demonstrates distinctive features in histology, immunohistochemistry, and molecular study. The former is characterised by wedge-shaped melanocytic lesion arranged in fascicles with vertically orientated nests and radial growth pattern (hanging banana) as well as intercellular clefts-like spaces. The ALK immunohistochemical study is commonly utilized as a surrogate marker prior to a confirmatory molecular study. However, discrepancy between the ALK IHC and the molecular study was reported. The discrepancy was attributed to differences in primary antibody clones, detection methods, or translocation fusion partners. On another occasion, positive ALK IHC could be due to ALK amplification or a mutated ALK isoform.ALK-rearranged Spitz tumour confirmed with FISH analysis favours benign behavior. Review of the articles show no evidence of recurrenceup to nine years or positive sentinel lymph node. *Conclusion*: ALK-rearranged Spitz tumourfavours a benign clinical behaviour as there is no recurrence or mortality reported thus far. Constellation of histomorphology, ALK cytoplasmic staining and ALK rearrangement defined this entity.

CR89 Castleman disease masquerading as intraabdominal tumour: A case report

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Castleman disease is a rare nonmalignant lymphoproliferative disorder. It most often involves lymph node but extranodal sites can also be affected. It has a few variants: hyaline vascular variant, plasma cell variant, unicentric and multicentric Castleman disease. We reported a case of a 10-year-old boy who presented with chronic microcytic hypochromic anemia since he was 7 years old. He was further investigated and a mesenteric mass was revealed in his abdominal ultrasound. The clinician suspected a neoplasm and the mass was removed in toto. This report demonstrates Castleman disease as a non-neoplastic entity that should always be considered in the differential diagnoses of an intrabdominal mass due to its unknown cause apart from HIV infection, and its diversity of presentation and clinical courses. Hence, an accurate clinical diagnosis of Castleman disease requires pathologist awareness and degree of suspicion of this rare entity.

CR90 Primary central nervous system lymphoma, initially treated as infectious lesion: A case report

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Introduction: Primary central nervous system (CNS) lymphoma is a rare neoplasm, that accounts for 3% of all primary brain tumours. The median age of disease manifestation in immunocompetent patients is 65 years old, while it is younger in immunocompromised patients. The clinical presentation is variable, mostly due to mass effect. On radiology, primary CNS lymphoma may have multiple lesions that resemble other diseases such as cerebral tuberculoma and cerebral toxoplasmosis. *Case report:* We report a case of 49-year-old immunocompetent male with progressive headache for 3 weeks. He was treated for bilateral ocular tuberculoma two months prior to presentation. A repeat CT brain showed multiple intracranial tuberculoma, isodense lesions at left temporal, frontal and posterior fossa mass. Serum Toxoplasma IgG was also detected. The intensive phase for tuberculosis was restarted, as was treatment for toxoplasmosis, but his condition worsened. Following an MRI of brain that revealed a different pathology, a craniotomy and tumour debulking surgery was performed. The tissue biopsy confirmed primary CNS lymphoma (diffuse large B cell type), as no systemic involvement seen. *Discussion:* The difference between primary CNS lymphoma, tuberculoma and cerebral toxoplasmosis is not straightforward as they may have overlapped radiological findings. A primary brain lesion or metastases should be considered when a patient's condition worsens despite initial treatment. It is important to consider clinical factors such as immunological state, radiologyand the patient's progress before reaching a diagnosis. This case highlights the importance of early diagnosis because primary CNS lymphoma is aggressive and has a poor outcome.