ABSTRACTS

57th IAP Thailand Annual Meeting 2017
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Edited by:
Pimpin Incharoen
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Anant Karalak, MD  
President, International Academy of Pathology, Thailand division

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Dear Colleagues,

On behalf of the organizing committee of the 57th IAP-Thailand Annual Meeting, I am very pleased to welcome you to join this congress.

As the organizing committee, we endeavoured to build the most fruitful scientific program including updates and practical aspects in various fields of anatomic pathology, eg. Gynecopathology, Genitourinary Pathology, Molecular Pathology, Digital Pathology, Bone and Soft Tissue Pathology, Hematopathology, Head and Neck Pathology, Breast Pathology, Dermatopathology, Thoracic Pathology, Cytopathology, Endocrine Pathology, GI Pathology and Neuropathology. There are more than 30 international and local speakers participating in this congress with different topics being presented in 3 separate rooms.

Aside from academic experiences, this is a great opportunity for you to explore one of the world's top tourist destination cities, known as the City of Angels, where you can visit a wide range of tourist attractions including historic sights, shopping malls and dining places.

I hope that the 57th IAP-Thailand Annual Meeting at Bangkok will be an enjoyable experience, both scientifically and personally, for all of you. I look forward to seeing you in this wonderful event.

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Fetal and Placental Features in Dead Fetuses with Intrauterine Syphilis Infection in Siriraj Hospital

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Abstract

Background:
Intrauterine syphilis infection is a result of Treponema pallidum infection during pregnancy. It usually causes fetal demise. At autopsy, the diagnosis can be reached by recognition of its characteristic pathology in conjunction with identification of T. pallidum in fetal and/or placental tissues. However, there are cases lacking the characteristic pathology or manifesting with unfamiliar abnormalities. In this study, we present fetal and placental features in perinatal autopsy cases diagnosed with syphilis infection in our institute.

Materials and methods:
A search of the database to include perinatal autopsy cases diagnosed with syphilis infection between 2006 to 2017 yielded 20 cases with available materials for the study. Gross, radiologic, and microscopic features of the fetuses and placentas were reviewed.

Results:
The gestational age of the 20 cases ranged between 17 and 32 weeks (mean and median age: 26 and 27 weeks, respectively). Fetal abnormalities included thymic abnormalities (95%), hydrops (65%), hepatomegaly (65%), splenomegaly (55.6%), abnormal long bone metaphyses (25%), pleuropulmonary inflammation (15%), features suggesting intrauterine growth restriction (5%), hepatitis (5%), and cerebritis (5%). Placental abnormalities included placentomegaly (75%), acute chorioamnionitis (40%), chronic villitis (25%), chronic deciduitis (20%), chorial plate vasculitis (15%), acute deciduitis (15%), increased Hofbauer cells in villi (15%), intervillitis (10%), acute villitis (5%), funisitis (5%), and small placenta (5%). None demonstrated microphthalmia, microcephaly, osteochondritis, intracranial calcification, or necrotizing umbilical phlebitis/arteritis. Interestingly, one case showed only placental abnormalities.

Conclusion:
Intrauterine syphilis infection commonly resulted in second-trimester fetal demise. Thymic abnormalities and placentomegaly were the most common abnormalities identified at autopsy.
Association of Intratumoral Infiltrating Lymphocytes with Growth Pattern of Gastric Carcinoma

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Abstract

Background:  
Gastric cancer (GC) is one of the most common malignancies and the second most frequent cause of cancer-related death worldwide. The purpose of our study was to evaluate the correlation between the growth pattern and peritumoral lymphocytes in the patients with GC.

Methods:  
Altogether, 300 patients undergoing GC surgery at Riga East University Hospital in 2012-2014 were enrolled in the study. The study was approved by a local ethical committee. The histopathological examination of GC tissue was performed. The results were analyzed by SPPS 21. version software.

Results:  
Obtained results showed that Grade I carcinoma was found in 8 cases, Grade II carcinoma in 70 cases and Grade III in 222 cases. In addition, according to Lauren classification, the 80 patients had intestinal type carcinoma, 93 patients had diffuse type carcinoma, 38 patients had mixed type carcinoma and 15 patients had undetermined type carcinoma.

Furthermore, obtained results demonstrated increased infiltrating peritumoral lymphocytes in patients with intestinal type carcinoma compared to diffuse type carcinoma (45 \textsuperscript{12} vs. 22 \textsuperscript{10}, p=0.004) and mixed type carcinoma (45 \textsuperscript{12} vs. 18 \textsuperscript{14}, p=0.008). However, the number of infiltrating lymphocytes did not differ compared to indeterminded type. In addition, the positive correlation between the degree of differentiation and infiltrating peritumoral lymphocytes was revealed (Rho=+0.78; p<0.001).

Conclusions:  
In conclusion, our data indicated that peritumoral lymphocytes are important in establishing the tumor microenvironment for GC; intratumoral lymphocytes are associated with tumor differentiation degree and growth pattern according to Lauren classification.
Objective:
To determine the rate of placental infarcts among babies of intrauterine growth restriction (IUGR) and the associated factors.

Material and Methods:
Medical records and histology results of the placenta obtained from singleton IUGR births from 2009 to 2016 at Srinagarind Hospital, Khon Kaen University were reviewed. IUGR complicated by multiple gestations and stillbirth were excluded. Placental infarcts were diagnosed by coagulative infarcts of placental parenchyma with more than 30% in term placentas.

Results:
Of 121 IUGR births, 58 (47.9%, CI 38.82-56.98) were placental infarcts. The other findings were composed of accelerated villous hypermaturation in 66 placentas (54.54%), increased perivillous fibrin in 72 placenta (59.50%), chorangiosis in 19 placentas (15.70%), and chronic villitis in 4 placentas (3.30%). Preterm gestational age was the only significant risk factor for placental infarcts (adjusted OR=2.64, CI=1.04-6.71). The other insignificant risk factors consist of maternal age, poor ANC, anemia and maternal underlying disease.

Conclusion:
Placental infarcts among IUGR birth were common. The significant risk factor of placental infarcts were gestational age.
Bone Marrow Evaluation for Diffuse Large B Cell Lymphoma: Prevalence and Histologic Findings

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Abstract

Background:
Bone marrow involvement (BMI) in patients with diffuse large B cell lymphoma (DLBCL) indicates poor prognosis. BMI can be assessed by H&E or CD20 immunohistochemistry (IHC). This study aims to evaluate the prevalence of BMI and describe percent of tumor in H&E compare with CD20.

Materials and Methods:
Retrospective descriptive study, 117 bone marrow specimens (staging 111 cases and primary diagnosis 6 cases) from Pathology Laboratory of Thammasat University Hospital from 1st January 2012 to 31st December 2016 were reviewed with clinical correlation.

Results:
The BMI was found 9.9% in staging (11/111 cases) and 6 cases of primary DLBCL diagnosis. In staging, H&E has positive predictive value (PPV) of 9/11 = 81.8%. Discrepancy in tumor volume between H&E and CD20 IHC ranges from -6% to 12% (mean 0.9%). Considering tumor volume comparing to international prognostic index (IPI); of 7 cases with tumor volume =10%, 4 have high IPI (4/7 = 57.1%); of 5 cases with tumor volume 11-50%, 3 have high IPI (3/5 = 60%) and of 4 cases with tumor cell volume 51%, 3 have high IPI (3/4 = 75%)

Conclusion:
Prevalence of BMI in DLBCL staging is 9.9% with PPV 81.8%. Percent of tumor volume in H&E is slightly different from that of CD20. There is a trend that increasing tumor volume has higher IPI score.
Objective:
The Ki-67 labelling index (LI) has been used in diagnostic pathology for years to assess cellular proliferation but a standardized method is not well-established. The main objective of this study was to evaluate the performance of different antibodies and laboratories in assessing the Ki-67 LI.

Material and methods:
Twenty-five cases of neuroblastoma were retrieved from The Hospital for Sick Children (HSC). Ki-67 immunostaining was performed in two pathology laboratories, King Chulalongkorn Memorial Hospital (KCMH) and HSC, using two antibodies (clone MIB-1, DAKO; and clone 30-9, Ventana). All stained sections were digitally scanned, and the entire section of each case was analyzed by both laboratories using Aperio ImageScope Viewer program with the same setting algorithms. Results were compared using Wilcoxon Signed Ranks Test (SPSS statistic software).

Results:
High reproducibility of the Aperio ImageScope analysis program between the two laboratories was found, with Intraclass Correlation Coefficient > 0.99 (95% CI 0.99-1.00; p <0.001). Focusing on different antibodies, significant differences in Ki-67 LI were observed between clones MIB-1 (DAKO) and 30-9 (Ventana) at both KCMH (x̄ Δδ=10.06, SD=7.48; p<0.001) and HSC (x̄ Δδ = 12.44, SD = 8.09; p<0.001) labs. There was trend for the clone MIB-1 to give lower LI than did the clone 30-9. Significant differences in Ki-67 LI were also noted between the KCMH and HSC labs for both MIB-1 (x̄ Δδ=3.87, SD=4.28; p=0.006-0.008) and 30-9 (x̄ Δδ=6.67, SD=3.98; p=0.048) clones, with a tendency for KCMH lab to give higher LI.

Conclusion:
Image analysis program provided highly reproducible results for assessing Ki-67 LI. However, discordant results were found between different antibody clones and laboratories. Standardization is needed for using Ki-67 LI in routine practice.
Introduction:
Whole slide imaging (WSI) is an emerging tool in the research application and clinical practice of digital pathology. This study aims to investigate the accuracy and concordant rate of WSI when compared to the standard diagnosis by glass slide in cytopathology of non-gynecological slides.

Materials and Methods:
Sixty non-gynecological cytology slides were selected. All of them were scanned by the multiple focal plane capture function for WSI. All specimens were interpreted by an experienced and WSI-trained pathologists and compared to the standard glass slide with optical microscope. The time between the interpretation of WSI and glass slide were three weeks. They were analyzed in two aspects: First, the accuracy rate of diagnosis; and second, the concordant rate categorized as either an identical, minor, or major discordant. The structured questionnaires were completed by three pathologists for evaluation of WSI.

Results:
The accuracy rate of WSI was 93.33%. The concordant rate was 95%. Kappa coefficient was 0.9 (p value <0.0001). The necessary use of a computer mouse to pan the image over a monitor made it uncomfortable to use WSI alongside an optical microscope.

Conclusion:
WSI has the potential to play a major role in the diagnosis in non-gynecological cytology. In the future, the WSI will play major role in non-gynecological cytopathology.
HPV Genotypes in Women with ASC-US Cytology: A Canadian Experience

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Abstract

Background:
This study determined the frequency of high-risk (HR) and low-risk (LR) human papillomavirus (HPV) genotypes in Canadian women with atypical squamous cells of undetermined significance (ASC-US) cytology and correlated the virological data with age and histological diagnosis.

Materials and Methods:
Study population consisted of women representing five of the ten Canadian provinces either undergoing routine cervical cancer screening or having a history of abnormal cytology and being followed up in colposcopy clinics. Cervical specimens were collected in PreservCyt™ and cytology was performed using the ThinPrep™ method, and were processed for HPV genotyping using the Linear Array™ method. Cervical biopsy results were obtained from participating centers and accepted as the disease endpoint.

Results:
The study analysis was based on 357 women with ASC-US cytology, with a mean age of 30.6 ± 10.7 years. The mean age of women with HR-HPV infection was significantly lower compared with the LR-HPV and HPV negative groups (29.5 ± 10.6 versus 33.4 ± 10.7 years; p = 0.002). Overall, 176 (49.3%) of the 357 women had histology-confirmed cervical lesions: 101 (28.3%) had CIN1, 18 (5.0%) CIN2, and 57 (16.0%) CIN3 or worse.

Further, HR-HPV was detected in 252 (70.6%) of the 357 women, and among the 75 women with CIN 2 and CIN 3 or worse, HR-HPV was detected in 69 (92.0%). Among the 101 women with CIN 1, 87 (86.1%) were positive for HPV, with 80 (92%) harboring HR-HPV and 7 (8.0%) having LR-HPV.

Conclusion:
Our study suggests HR-HPV is highly prevalent in Canadian women with ASC-US cytology regardless of histological grades. However, in women over 35 years there is a lower prevalence of HR-HPV, which may reflect the transient nature of HR-HPV infection in women under 35 years. The accurate evaluation of the frequency of HR- and LR-HPV infections in ASC-US cytology may be useful in cervical cancer screening.
Incidental Detection of Carcinoma in Situ in Fibroadenoma of Breast in a Young Woman: A Rare Finding

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Abstract

Background:
Fibroadenoma is the most common benign tumour of breast in young females. Breast cancer arising within fibroadenoma is a rare phenomenon. The incidence of carcinoma within fibroadenoma is reported to be between 0.1% and 0.3% in a screened population, with a peak age of occurrence between 42 and 44 years. Thus, detecting this neoplasm is of utmost importance for complete treatment and follow up. These lesions are an incidental finding in a lumpectomy specimen done for fibroadenoma breast.

Case Report:
A 29-year-old female presented with multiple bilateral mobile, non tender and slow growing breast lumps since 8 years. USG showed multiple hypoechoic lesions suggestive of fibroadenoma. Similarly, FNAC showed, multiple cohesive clusters of branching papillary fronds suggestive of fibroadenoma. She then underwent lumpectomy at Kasturba Hospital, Manipal and the excised tissue were subjected for histopathological examination. Grossly, multiple well circumscribed, encapsulated masses, with the largest measuring 4x2x2.5 cm was noted. All masses showed homogenous grey white areas with slit-like spaces. On microscopy, predominantly seen were benign compressed ducts with pericanalicular and intracanalicular proliferation suggestive of fibroadenoma along with one lump showing nests of cells having pleomorphic nuclei, prominent nucleoli with atypical mitosis with cribriform pattern suggestive of ductal carcinoma in situ.

Conclusion:
This case highlights the rare association of fibroadenoma and carcinoma in situ. In present study radiology and cytology revealed only multiple fibroadenoma but carcinoma was detected incidentally on histological examination. Therefore, a careful and extensive sampling of the tissue is required to prevent the under diagnosis by pathologists.
Spectrum of Acute Leukemias Diagnosed Using Flow Cytometry: A Tertiary Care Experience

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Abstract

Background:
Acute leukemias (ALs) are a heterogeneous group of malignancies with varying clinical, morphologic, immunologic, and molecular characteristics. Immunophenotyping by flow cytometry is a valuable tool for the diagnosis, classification and monitoring of leukemias. The aim of this study is to analyse the spectrum of ALs diagnosed on flow cytometry.

Materials and Methods:
A retrospective study was conducted in the clinical laboratory of Kasturba hospital, Manipal, over a period of one year from January 2016 to December 2016. Flow cytometry reports of all diagnosed cases of ALs were analysed. Flow cytometry was performed on peripheral blood/bone marrow samples using BD FACS canto flow cytometer.

Results:
102 cases of ALs were diagnosed on flow cytometry. Male: female ratio was 1.12:1. There were 51 cases (50%) of acute lymphoblastic leukemia (ALL), 49 cases (48%) of acute myeloid leukemia (AML), and 2 cases (1.96%) of mixed phenotypic acute leukemia (MPAL). Peak incidence of ALL was in the age group 0-20 years and AML was 50-70 years. In ALL, 39 cases were B cell ALL, of which majority were common acute lymphoblastic leukemia antigen (CALLA) positive (92.3%) and 12 cases were T cell ALL. Aberrant expression of markers (CD13, CD33, CD 56, CD 5 and CD7) were seen in 6 cases. In AML, 3 cases were myeloperoxidase (MPO) negative and the aberrant expression of markers (commonly CD7 followed by CD19 and CD4) were seen in 12 cases. Two cases of MPAL diagnosed were T/myeloid and B/myeloid types.

Conclusion:
Flow cytometry is an essential tool for diagnosis and sub-classification of AL. It is useful for the correct identification of AML- M0, MPO negative AML, MPAL, aberrant markers and to differentiate B and T cell ALL. This will further aid in prognosis and in taking appropriate treatment decision.
Background:
The cervical cancer is one of the most common causes of death in Thai women. The co-test of HPV DNA testing and cytology is currently recommended by the Thai Gynecologic Cancer Society's guideline for cervical cancer screening and management. This study aims to determine whether abnormal cytological samples with subsequent histologically proven HSIL were truly negative for high-risk HPV (hrHPV) reported by the Cobas 4800 system.

Materials and Methods:
Patients with abnormal cytology ASC-US(+) but negative hrHPV DNA test, who were histologically proven to be HSIL, were retrieved from the population-based cervical cancer screening program between 2012 and 2016 in Northern Thailand. DNA from original cytological samples was re-evaluated for HPV DNA by using a wider range of detection kit, the Linear Array HPV genotyping test (LA).

Results:
Among 19,102 cases, 10 cases (0.05%) of histologically-proven HSIL with initial abnormal cytology but Cobas 4800 HPV-negative were detected. All cases were positive for HPV genotyping by LA, 80% (8 of 10) were hrHPV [type 16, 51, 52, 58 and 73] while 20% (2 of 10) were non-hrHPV [type 42/62 and type 70]. Interestingly, the most common missing hrHPV detection by Cobas was HPV type 52, found in 4 of 8 (50%), which has a relatively high level of the limit of detection.

Conclusion:
HPV type 52, a high prevalent hrHPV in Northern Thailand, is most frequently missed by the Cobas hrHPV DNA test in cases with HPV negative/HSIL. This suggests that adjusting the limit of detection in a specific population may prevent a false negative result of HPV screening test.
Neuroendocrine Tumour of Male Breast with Pleural Metastases

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Abstract

Background:  
Male breast cancer is an uncommon disease accounting for only 0.7% of all breast cancer diagnoses. We report an interesting case of neuroendocrine tumours of male breast with pleural metastases.

Case Report:  
A 20 year old man, with chief complaints of a lump in his left breast who had developed pleural effusion by radiological finding. Palpation identified a 2.5 cm nodule in the left breast and multiple nodules in the bilateral axilla. The patient underwent subcutaneous mastectomy with axillary lymph node dissection and the conclusion of histology report revealed a Neuroendocrine tumour with differential diagnosis of Malignant Lymphomas. Immunohistochemistry was taken, the tumour cells were positive for NSE and negative for CD20, the conclusion results is Neuroendocrine tumour. These malignant cells were positive in pleural fluid.

Discussion and Conclusion:  
While breast cancer in men is similar to female breast cancer, there are distinct features that should be appreciated. Primary neuroendocrine tumours of the breast are infrequent tumours that appear in women for less than 0.1% of all breast cancers and less than 1% of all neuroendocrine tumours. Lymph node and distant metastasis is frequent and the prognosis usually poor. Diagnosis is achieved via staining with neuroendocrine markers, the patient was diagnosed as Neuroendocrine tumour with pleural metastases.
A Case of Ovotesticular Disorder of Sex Development (Ovotesticular DSD)

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Abstract

Background:  
Ovotesticular disorder of sex development (ovotesticular DSD) is a very rare disorder in which an infant is born with the internal reproductive organs (gonads) of both sexes (female ovaries and male testis). The gonads can be any combination of ovary, testis or combined ovary and testis (ovotestis). The external genitalia can range from normal male to normal female. Most patients with ovotesticular DSD are often diagnosed within the first few months to years of life.

Case Report:  
We report a case of 1 year 8 months old girl with a genotype of 46 XX (female) and ambiguous genitalia. The patient was born spontaneously at term. Microscopically, testicular compartment shows tubulus seminiferus, without spermatogenesis process. Ovarian compartment has primordial and growing follicles lined by a single layer of theca granulosa cells.

Discussion and Conclusion:  
This patient was decided as a female based on genotype of 46 XX. After determining the sex of the individual, surgery with biopsy to determine the gonads and orchidectomy were done, and reconstruction of external genitalia was planned. The most important factors that influence sex assignment include the definite diagnosis, genital appearance, surgical options, potential for fertility, risks of gonadal malignancy, cultural issues and the perception of the patient. This could have led to clinical and psychological problems in the adult life.
Case Series of Cardiac Myxoma in Hasan Sadikin Hospital from March 2013 - March 2017

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Abstract

Objectives:  
The purpose of this study was to define epidemiology, echocardiography, clinical diagnosis and histopathological feature of cardiac myxoma in Hasan Sadikin Hospital Bandung.

Materials and Methods:  
This was a descriptive–retrospective study of the age, sex, risk factor, main symptom, site of tumor, echocardiography, clinical diagnosis and histopathological feature of cardiac myxoma in Hasan Sadikin Hospital Bandung between March 2013 - March 2017.

Results:  
There were 5 cases of cardiac myxoma included in this study. The age distributions were between 22 to 58 years old (mean 40). Three cases (60%) were male and 2 cases (40%) were female. None had risk factor with family history of cardiac myxoma. The most frequent symptom were dyspnea (100%). One hundred percent of the cases were located at left atrial. The most common echocardiography were left atrial myxoma (60%). Five cases (100%) were clinically diagnosed as myxoma. One hundred percent of histopathology feature were stellate cells in a myxoid stroma which was compatible with cardiac myxoma.

Conclusion:  
In this study, Cardiac myxoma is more common in men with an average age of 40 years with most sites in the left atrial. Clinical diagnosis, echocardiography and histopathological diagnosis of all cases give the same result of cardiac myxoma.
Clear Cell Sarcoma of the Kidney: A Case Report.

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Abstract

Background:
Clear cell sarcoma of the kidney (CCSK) is a rare malignant tumor that comprises 3 - 5% of all primary childhood renal tumors. It is one of the most common unfavourable and aggressive tumor with poor prognosis. Mean age of diagnosis is 36 months and occurs most commonly in males with a ratio of 2:1. Twenty cases are reported per year. This is the most frequently misdiagnosed renal tumor in children because it is unusual, has varied morphology and no specific markers. Thus, we describe a CCSK from a 3 year old, male child.

Case Report:
A 3 year old male presented with right lower quadrant abdominal pain associated with abdominal bloating, fever and pedal edema. Ultrasonography revealed a large right renal mass with an impression of Nephroblastoma. Radical nephrectomy was performed.

Results:
Grossly, the specimen consists of tan brown, enlarged kidney covered with thin capsule. Cut surface is tan cream, solid with myxoid and focal area of cystic spaces. Microscopic examination shows several morphologic patterns, most common are the classic and myxoid patterns. The classic pattern are seen in nests, cords and sheets of monomorphic tumor cell separated by thin fibrous septa with prominent delicate vasculature. The myxoid pattern reveals tumor cells set in abundant myxoid matrix. Tumor is strongly positive for vimentin, focally positive for Bcl–2 and negative for cytokeratin. The patient was then advised for chemotherapy.

Conclusion:
CCSK is a very aggressive renal primary tumor. It is most frequently misdiagnosed and unresponsive to common chemotherapeutic agents. Thus, proper evaluation and early diagnosis must be done to improve prognosis.
Cytologic Screening of Thyroid Cancer and Diagnostic Accuracy in Sunpasittiprasong Hospital

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Abstract

Background:
Fine needle aspiration (FNA) cytology of the thyroid is a rapid, minimally invasive, and cost effective first line procedure in an evaluation of thyroid nodule. This study was conducted to evaluate the cytological accuracy, sensitivity and specificity of FNA cytology for solitary thyroid nodules and the cause of diagnostic errors with an eventual aim to improve diagnostic accuracy.

Materials and Methods:
A retrospective study was carried out at department of Pathology in Sunpasitti-prasong Hospital. A total of 745 patients with clinically palpable solitary thyroid nodule were included in the study between January 2012 to August 2016. The results were review as categorized and comparing cytology and corresponding histopathology reports. The statistical analysis included false positive rate, false negative rate, sensitivity, specificity, positive predictive value, negative predictive value and accuracy of the procedure were determined.

Results:
The 151 cases (20.26%) males and 594 cases (79.73%) females, with female to male ratio of 4:1. The age ranged from 16 to 87 years, with a median age of 51.5 years. FNA for cytological evaluation, out of 745 cases, 37 (4.96%) were unsatisfactory and 708 (95.03%) cases were satisfactory. The nodules were interpreted as benign in 246 cases (34.74%), follicular lesion in 93 cases (13.13%), follicular neoplasm in 124 cases (17.93%), suspicious lesion in 12 cases (1.69%), malignant in 203 cases (28.67%). FNA diagnosis and tissue diagnosis comparison was carried out for these cases. The study showed a diagnostic accuracy 95.48%, sensitivity 98.61%, specificity 99.56%, positive predictive value 99.06% and negative predictive value 99.35% respectively.

Conclusion:
Fine needle aspiration cytology has an high accuracy of diagnostic tool for the initial screening and differentiating between a benign and malignant lesions. The false negative diagnoses were follicular pattern, cystic papillary thyroid carcinoma and papillary microcarcinoma. The reason for false positive diagnoses was the occurrence of nuclear features characteristic of papillary thyroid carcinoma (PTC) in other thyroid lesions. Awareness by cytotechnologist and pathologist regarding these pitfalls can minimize false negative/positive diagnoses.
The Unraveling of the Cause of Death of a Patient with an Autoimmune Disease: A Case Report

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Abstract

Background:
Juvenile idiopathic arthritis (JIA) is a pediatric illness characterized by the onset of arthritis lasting for 6 weeks prior to 16 years of age. Oral steroids, such as Dexamethasone, are known to be immunosuppressive and used for the treatment of JIA. Patients who use this, especially those who use them exorbitantly, may have worse immunosuppression – with a risk of sepsis and septic shock, risk of forming gastric ulcers, Cushing’s Disease, and occurrence of acute myocardial infarction (AMI).

Case Report:
This paper presents a case of a 21-year-old female who was diagnosed with JIA, polyarticular subtype, at a Children’s Hospital when she was only 6 years old. She was maintained on Dexamethasone 4mg/tab, 1 tab BID, taken erratically. She was rushed to the emergency room due to difficulty of breathing. She was then admitted and several laboratory and imaging work ups were done, which revealed multi-organ problems. On her 10th hospital day, she expired. Autopsy findings revealed multi-organ dysfunction showing 1. Myocardial Infarction, Focal Microinfarction, Right Ventricle, Recent: 12-24 hours, 2. Lobar Pneumonia, Bilateral Lungs, 3. Acute Tubular Injury, Bilateral Kidneys, 4. Cortical Atrophy, Zona Fasciculata and Zona Reticularis, Bilateral, 5. Chronic (Atrophic) Gastritis and Chronic Gastric Ulcer, and 6. Sepsis with a bacterial culture showing Staphylococcus hominis.

Discussion and Conclusion:
Dexamethasone used in autoimmune diseases such as Polyarticular JIA, even in young patients, have many side effects involving the gastrointestinal system, renal system, endocrine system, cardiovascular system, and others. Clinicians should be wary and should advise patients that improper use might trigger several problems, including fatal ones such as AMI.
Discordant Anomalies with Combined Features of Pentalogy of Cantrell and OEIS Complex: A Case Report in Monochorionic Twins

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Abstract

Background:
Ventral body wall defects have various manifestations. Among others, pentalogy of Cantrell (PC) and OEIS complex are defects that involve upper and lower anterior midline of body wall, respectively. Although both entities are in a spectrum of ventral body wall defects, the combination of PC and OEIS complex has not been described.

Case report:
In this report, we describe an unusual case of congenital ventral body wall defect with combined features of PC and OEIS complex, which discordantly occurred in monochorionic monoamniotic twins.

Conclusion:
PC and OEIS complex may be related regarding their embryologic origins. The combination may represent the most severe manifestation of ventral body wall defects.
A 54-year Old Female with Bilateral Adnexal Masses Presenting as Heavy Vaginal Bleeding: A Case Report

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Abstract

Background:
Primary fallopian tube carcinoma is a rare malignancy with bilateral involvement occurring in 3-13% of cases. An accurate preoperative diagnosis is rare due to its resemblance with ovarian carcinoma.

Case Report:
This case represents a 54-year-old woman who presented with vaginal bleeding accompanied by abdominal pain. Physical examination revealed nodular, non-tender pelvoabdominal masses, while ultrasonography revealed bilateral, non-benign ovarian newgrowths. The patient underwent extrafascial hysterectomy and bilateral salpingo-oophorectomy.

Results:
Intraoperatively, the right and left fallopian tubes were cystically enlarged to 14.0 x 10.0 x 2.0 cm and 12.0 x 8.0 x 3.0, respectively, and contained yellowish, friable masses. Bilateral ovaries were grossly normal. Grossly, the bilateral fallopian tubes were dark brown, irregular, and filled with tan brown, friable excrescences. Microscopic sections of the bilateral fallopian tubes and right ovary revealed features of a serous papillary carcinoma with infiltration at the right ovarian cortical stroma. The case was initially signed out as serous papillary carcinoma of the bilateral fallopian tubes and right ovary, favoring tubal in origin (FIGO IB). A segment of the right fallopian tube was sent for immunohistochemistry. Staining with p53 was positive, while staining with Ki-67 had a low proliferation index at 10%.

Conclusion:
The results were consistent with the immunohistochemical profile of the p53 signature, which was suggestive of the fallopian tube as the site of origin of the carcinoma.
Immature Sacrococcygeal Teratoma in a 17–Day Old Male: A Case Report

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Abstract

Background:
Sacrococcygeal teratoma is a rare germ cell neoplasm in neonates and infants with an incidence rate of 1:40,000 per live births. This tumor is classified into mature, immature and malignant. The most common is mature teratoma and occurs predominantly in female neonates with a ratio of 1:4. Immature teratoma, however, has an incidence of 11.8%. A rare case of immature teratoma in a 17 days old, male neonate is described.

Case Report:
A 17 days old male neonate presented with a rapidly enlarging mass at the anal area associated with abdominal distension and absence of bowel movement. An impression of sacrococcygeal teratoma type IV was made based on CT scan of the pelvis. Excision of the mass was performed.

Results:
Grossly, the specimen is tan cream, ovoid, well circumscribed, soft to firm mass measuring 8x6x6 cm with solid and cystic components. Histologically, the immature tissues are primitive neuroepithelial elements, cartilage, renal, pancreatic, rhabdomyoblast, ameloblastic epithelium and lipoblasts. The endodermal – derived mature tissues are intestinal glands and epithelium. Mesoderm – derived component includes adipose tissue, smooth muscle cells and cartilage. Ectoderm – derived tissues are keratinized stratified epithelium, sweat glands, ganglion cells, peripheral nerves and glial tissue. The patient was then advised for chemotherapy.

Conclusion:
The presence of immature component in a teratoma is a risk factor for recurrence and metastasis thus proper work up and thorough microscopic examination of the different components of the tumor should be done.
Incidence of Gastroenteropancreatic Neuroendocrine Tumor in Hasan Sadikin Hospital from January 2014 – December 2016

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Abstract

Background:
Gastroenteropancreatic neuroendocrine tumor (GEPNET) are epithelial neoplasm with predominantly neuroendocrine differentiation and originate from diffuse endocrine system located in gastrointestinal (GI) tract and pancreas. The aim of this study was to define incidence of GEPNET in Hasan Sadikin Hospital, Bandung, Indonesia.

Materials and Methods:
This was a descriptive-retrospective study of age, sex, location, differential diagnostic, and immunohistochemistry of GEPNET in Hasan Sadikin Hospital between January 2014 – December 2016.

Results:
There were 17 cases with histopathological features suspected of GEPNET included in this study, consist of 4 cases (23.5%) in 2014, 6 cases (35.3%) in 2015, and 7 cases (41.2%) in 2016. The age distributions were between 2 to 71 years old (mean 37). Ten cases (58.8%) were male and 7 cases (41.2%) were female. Majority of cases (41.2%) were located in rectum. Adenocarcinoma is the most common (22.5%) differential diagnosis for GEPNET in this study. Seven cases (41.2%) have been confirmed as GEPNET by immunohistochemistry, most of which (5 of 7 cases/71.4%) are diagnosed by neuron specific enolase (NSE) staining.

Conclusion:
GEPNET are rare tumor. In this study, there was an increase of annual incidence of GEPNET. Definitive diagnosis of GEPNET was achieved through immunohistochemistry. This was a preliminary ongoing study to discover characteristic of GEPNET in Hasan Sadikin Hospital, Bandung, Indonesia.
A Lack of P16-positive HPV-Related Oral and Laryngeal Cancers In Thailand: A Single-institution Experience

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Abstract

Background:
Human papillomavirus (HPV) is a causative and prognostic factor for oropharyngeal (OP) cancer, but its role in squamous cell carcinoma (SCC) of oral cavity (OSCC) and larynx (LSCC) is not well characterized. Recent studies found that p16 expression by OPSCC with prototypical HPV-related morphology is sufficient to diagnose it as HPV-positive. However, benefit of evaluating p16 immunoexpression in non-OPSCC is not clear. We aimed to determine prevalence of HPV in OSCC and LSCC, and to evaluate concordance between p16 expression and presence of HPV.

Materials and Methods:
We collected 260 OSCC and 128 LSCC cases from a tertiary referral hospital over 2010–2015 years. Immunohistochemistry with p16 was performed on all the cases, and scored semiquantitatively. Positive and equivocal cases were tested by DNA ISH HPV III Family 16 Probe, specific for high-risk types HPV.

Results:
In OSCC, p16 expression at 70% and 30% cutoff levels was detected in 3.8% and 11.5% of cases, respectively. HPV ISH was positive in 4.2% of OSCC cases (11/260). Concordance p16/ISH was 50% and 37% at 70% and 30% cutoffs of p16 expression, respectively. In LSCC, p16 expression at 70% and 30% cutoff levels was detected in 4.7% and 5.5% of cases, respectively. HPV ISH was positive in 1.6% of LSCC cases (2/128). Concordance p16/ISH at 70% and 30% cutoffs of p16 expression was 33% and 29%, respectively.

Conclusion:
Very few local patients have p16-positive HPV-related OSCC and LSCC. Immunoexpression of p16 has poor predictive value for HPV in OSCC and LSCC.
Metastatic Rectal Adenocarcinoma to the Liver Causing Diagnostic Problems: A Case Report

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Abstract

Introduction:
Colorectal cancer with liver metastasis is common, however when spreading tumor involving bile duct can cause diagnostic problems.

Case Report:
We report a case of 45-years-old male with a stage II adenocarcinoma of rectum, status post low anterior resection and CCRT for 6 years. CT whole abdomen reveals multiple liver masses at segment II, III and VIII. The histology reveals intraductal tumor with fibrovascular core, growing in bile duct lumen. The tumor is positive to CK20 and CDX-2 but negative to CK7.

Discussion:
In this case, the patient had a history of rectal adenocarcinoma and manifested with multiple liver mass and intraductal mass. The immunohistochemistry is an effective tool for differential diagnosis of bile duct cancers.

Conclusion:
This is rare manifestations of rectal adenocarcinoma metastazing to the liver involving the intrahepatic large bile ducts, misleading for the diagnosis of primary bile duct cancer.
Parathyroid Adenoma in a Young Adult at Hasan Sadikin Hospital: A Case Report

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Abstract

Background:
Parathyroid adenomas are most common cause of primary hyperparathyroidism. The etiology was unknown. Parathyroid adenoma is removed surgically when patient has symptoms of hypercalcemia. Herein, we report a case of parathyroid adenoma.

Case Report:
A 18 years old male patient complained of bone pain and gait disturbance and was referred to Hasan Sadikin Hospital. Physical examination revealed solid mass at left femoral and bilateral humeri. Laboratory tests showed hypercalcemia and elevated serum level of intact parathyroid hormone. CT scan of parathyroid revealed solitary lesion at left parathyroid. These findings were diagnosed as primary hyperparathyroidism. The parathyroid lesion was surgically resected. Macroscopically showed a solid, brownish-white mass measuring 7x2x1 cm. Histopathologically, the tumor consisted of hyperplasia of chief cells and oxyphil cells. There were no necrotic areas, nuclear atypia, or mitotic figures. The conclusion was parathyroid adenoma. Immunohistochemistry showed positive parathyroid hormone marker.

Discussion:
Parathyroid adenoma, in histopathological feature, showed a benign neoplasm of the parathyroid glands which consisted of chief cells, oncocytic cells, transitional oncocytic cells, or a mixture of these cell types without nuclear atypia. The tumor induced hypercalcemia that cause sclerotic, bulged, and bone lytic lesion manifestation of osteogenesis imperfecta. This condition finally cause bone pain and gait disturbance that occur in this patient.

Conclusion:
Parathyroid adenomas exhibit functional abnormalities manifested as osteogenesis imperfecta which is diagnosed based on laboratory, radiological, and histopathological examination.
The Bethesda System for Reporting Thyroid Cytopathology: a Retrospective Study from a Single Asian Institute

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Abstract

Background:
Bethesda system for reporting thyroid cytopathology (BSRTC) was introduced to standardize reports and patients’ management. Few studies from western countries showed a good diagnostic relationship between BSRTC and the final histopathological (HP) result. However, limited studies have been done in Asian population.

Materials and Methods:
A retrospective study included 594 patients who underwent fine needle aspiration cytology (FNAC) of thyroid at Hospital Putrajaya, from 2002-2017. The FNAC results were categorized according to BSRTC and compared with HP result after surgical excision.

Results:
A total of 594 patients with thyroid nodules underwent FNAC at our center (505 female and 89 male) with the median age and thyroid nodule size of 41 years and 30 mm respectively. FNAC results were categorized according to Bethesda criteria: 89 (15 %) non-diagnostic/unsatisfactory, 352 (59 %) benign, 122 (21 %) atypia of unknown significant / follicular lesion of undetermined significance (AUS/FLUS), 9 (2 %) follicular neoplasm / suspicious for follicular neoplasm (FN/SFN), 7 (1 %) suspicious for malignancy (SM) and 18 (3 %) malignant. 309 patients subsequently underwent surgical excision and the malignancy rate for each BSRTC category based on final HP report is as follows: non-diagnostic or unsatisfactory (17%), benign (10%), AUS/FLUS (27%), FN/SFN (63%), SM (83%) and malignant (100%).

Conclusion:
Our study shows higher rate of malignancy for all categories in comparison to the value quoted by current BSRTC. Ultrasound-guided FNAC may improve the diagnostic accuracy, especially in non-diagnostic/unsatisfactory and follicular lesion /atypia of undetermined significance group. Utilisation of recommended nomenclatures and appropriate comments by pathologists will aid in patients' management.
The DNA Methylation Status of CADM1 and MAL as an Alternative Triage for Detection of Cervical Precancer in HPV-Positive Women in Northern Thailand

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Abstract

Background:
Cervical cancer is the second most frequent malignancy affecting women in Thailand. The cytology is the common triage tool for cervical cancer screening, however, this technique has low sensitivity. Recently, the alternative triage DNA methylation test in hr-HPV positive women has been developed as tools for early detection of cervical precancerous lesion. The aim of this study was to evaluate methylation status of CADM1 and MAL genes in cytological samples in HPV-positive woman with cervical precancerous lesions.

Materials and Methods:
260 samples including 70 normal cytology & HPV-negative, 70 normal cytology & HPV-positive and 120 abnormal cytology & HPV-positive (48 ASC-USs, 22 ASC-Hs, 34 LSILs, and 16 HSILs) were evaluated for CADM1 and MAL methylation by using methylation specific PCR.

Results:
CADM1 and MAL methylation levels were significantly higher in all abnormal cytology groups with HPV-positive. Compared with normal cytology & HPV-positive group. The methylation levels increased up to 3.37 fold for CADM1 and 2 fold for MAL in HSIL & HPV-positive group. An area under the curve from the receiver-operating characteristic curve analysis of MAL methylation was 0.616 and 0.642 for CADM1. Moreover, CADM1 and MAL methylation levels were significantly correlated with abnormal cytology grades (Pearson correlate = 0.254 and 0.240, respectively, p < 0.01).

Conclusion:
This study demonstrated that MAL and CADM1 methylation levels correlated with the severity of cytologic abnormality in HPV-positive women in Northern Thailand. Hence, DNA methylation of CADM1 and MAL might be a potential alternative triage for detecting cervical precancerous lesion.
The Effect of Galing Plant (Cayratia trifolia) Extract against Gaster Histopathology Plasma Cell on Wistar Male White Rat (Rattus norvegicus) which is Induced by Mefenamic Acid

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Abstract

Background:
Galing plant (Cayratia trifolia) is a plant from Vitaceae families commonly known as fox grape. The content of galing plant such as flavonoid, kaempferol and resveratrol is useful as anti-inflammatory agent. Mefenamic acid are Non Steroidal Analgetic anti-Inflammatory Drug (NSAID) that cause various side effect in Gastrointestinal tract, like drug induced gastritis that cause inflammatory response. Plasma cells play a role in the inflammatory response. The aim of this research is to determine the effect of galing plant (Cayratia trifolia) extract against gaster histopatology plasma cell on Wistar male white rat (Rattus norvegicus) which is induced by mefenamic acid

Materials and Methods:
This experimental research used the post-test only control group design. Experimental animals were Wistar male white rat, which were devided into 3 groups (n = 10), negative control, positive control, and treatment group. Negative control was given standard feeding and water for 14 days. Positive control was given 500 mg/kg/day mefenamic acid in (CMC-Na) for 14 days. Treatment group was given galing plant (Cayratia trifolia) extract 500mg/kg/day, 45 minute later given 500mg/kg/day mefenamic acid in (CMC-Na) for 14 days. Experimental animals were terminated on day 15th. The data observed are the density of gastric plasma cell by histopathological examination and evaluated by a scoring system. Data is analyzed using Kruskal Wallis followed by Mann-Whitney U test.

Results:
The result showed a significant difference between negative control compared to positive control (p=0,001) and positive control compared to treatment group (p=0,001). The comparison between negative group and treatment group shows significant result (p=0,001).

Conclusion:
The effect of galing plant (Cayratia trifolia) extract reduces the density of gastric plasma cells of rat, induced by mefenamic acid.