



PROCEEDING BOOK

Annual Scientific Meeting Indonesian Association of Pathologists

The International Academy of Pathology Indonesian Division

"Embracing Recent Advances in Pathology and
Diagnostic Difficulties in Various Organs"
3 - 4 September 2022

Editor

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ABSTRACT PROCEEDING BOOK

ANNUAL SCIENTIFIC MEETING INDONESIAN ASSOCIATION OF PATHOLOGISTS

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Jakarta , 3-4 September 2022

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PERHIMPUNAN DOKTER SPESIALIS PATOLOGI INDONESIA (IAPD)
CABANG JAKARTA

Abstract Proceeding Book

Annual Scientific Meeting

Indonesian Association of Pathologists (IAPI)

*Embracing Recent Advances in Pathology and Diagnostic Difficulties in Various Organs,
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FOREWORD BY THE HEAD OF THE ORGANIZING COMMITTEE OF THE ANNUAL SCIENTIFIC MEETING OF INDONESIAN ASSOCIATION OF PATHOLOGISTS

Assalaamu'alaikum warrohmatullohi wabarokatuh

All praise and gratitude be to Allah SWT upon His mercy and blessings so that the 16th Annual Scientific Meeting (PIT) of the Indonesian Association of Pathologists can be held.

Anatomical Pathologist, as one of the medical professions, plays an important role in diagnostics and as a determiner of therapy, especially in the field of cancer. This profession is increasingly needed, along with the rapid advancement of knowledge in the field of diagnostics and therapy. Therefore, updates in knowledge for every Anatomical Pathology specialist are compulsory. The Annual Scientific Meeting is held to meet the needs and to overcome the challenges of this matter.

This year's meeting carries the main topic of "*Embracing Recent Advances in Pathology and Diagnostic Difficulties in Various Organs*" in order to increase the knowledge and insight of Anatomical Pathologists for the sake of the patients. Hopefully, by joining this event, participants may gain the latest knowledge and insights in the field of Anatomical Pathology. Despite being held online, we hope that this event will bring maximum benefits to our daily practice.

Alhamdulillah, the number of participants registered in this year's PIT IAPI is 962 people, consisting of 643 pathologists and 318 non-pathologists, more specifically 308 residents dan 10 general practitioners. There are 129 scientific papers from all participants, both pathologists and residents, consisting of 22 research proposals, 13 original research, and 94 case reports. We expect this number continues to grow in the next Annual Scientific Meeting.

I would also like to express my gratitude to the Chairman of the IAPI, Dr. Sjahjenny Mustokoweni, Sp.P.A(K), MIAC, FICS and staff, to all the international and national speakers, as well as moderators, who have made tremendous efforts to share their vast knowledge and to lead this current scientific meeting. I would like to show the highest appreciation to all the participants, sponsors, and the organizing committee whose contribution is enormous to this event.

As a final point, we apologize for any shortcomings in organizing and delivering this year's Annual Scientific Meeting,

Wassalamu'alaikum warrohmatullohi wabarokatuh

Head of the Organizing Committee
Annual Scientific Meeting 2022
Jakarta, August 18, 2022



Dr. dr. Lisnawati Sp.P.A(K)

FOREWORD BY INDONESIAN ASSOCIATION OF INDONESIA (IAPI) CHAIRMAN

Assalamu'alaykum warahmatullahi wabarakatuh

Praise and gratitude to Allah SWT, because with His permission, the Annual Scientific Meeting IAPI 2022 Proceeding Book can be published.

The theme "Embracing Recent Advances in Pathology and Diagnostic Difficulties in Various Organs" is in accordance with the current needs for Indonesian Pathologist in line with the increasing advances in science and technology, especially in developed countries.

The many changes in this disruptive era have also affected the work of Anatomic Pathology professions which can no longer rely on conventional patterns based on morphology alone.

Selection of topics covering the scope of cardiovascular, pediatric pathology consisting of liver, gastrointestinal tract, bone and soft tissue, kidney and molecular as well as head and neck which includes salivary and sinonasal glands as well as odontogenic tumors, each of which is accompanied by experience in Indonesia.

All of these provide good insight for the pathologists that although the number of cases is small, it is not a little that makes it difficult to establish a diagnosis so that additional knowledge is still needed

I want to thank to all speakers **dr. Cahyono Kaelan, Ph.D, Sp.P.A(K), Sp.S, Anita Gupta, MD, Juan Putra, MD, Kenneth Chang, MD, Prof. Hatsue Ishibashi-Ueda, MD. PhD, dr. Eviana Norahmawati, Sp.PA(K), dr. Hanggoro Tri Rinonce, PhD, Sp.P.A(K), Justin A Bishop, MD, dr. Ening Krisnuhoni, MS, Sp.P.A(K), Prof. WM Tilakaratne, Jason L. Hornick, MD, PhD, dr Suly Auline Rusminan, Sp.P.A(K), and dr. Yayi Dwina Billianti, M.Biomed, Sp.P.A(K)** for the contribution to the Annual Scientific Meeting (PIT) IAPI 2022 programs

I hope that this 2022 PIT, although it is still carried out online, will not reduce its meaning and will still be able to provide results, benefits and convenience for members in carrying out their professional duties in providing anatomic pathology services in Indonesia.

We express our gratitude to the President of Indonesian Medical Association and the Governor of DKI Jakarta for their presence and giving remarks at this Annual Scientific Meeting IAPI 2022 which at the same time is pleased to officially open the Annual Scientific Meeting IAPI 2022.

Thank you to the Jakarta Branch IAPI Executive Committee, vendors and all participants for their participation so that this PIT can be carried out in the midst of the pouring of Covid19 cases.

Wassalamu'alaykum warahmatullahi wabarakatuh



Dr. Sjahjenny Mustokoweni, SpPA(K), MIAC, FICS
Chairman

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Annual Scientific Meeting

INDONESIAN ASSOCIATION
OF PATHOLOGISTS

THE INTERNATIONAL ACADEMY
OF PATHOLOGICAL ANATOMY
INDONESIAN DIVISION

DAY 1 SCHEDULE SEPTEMBER 3RD, 2022

- 08.00 - 08.45 Opening
- 08.45 - 09.05 Lecture : Ethics and Patient Safety
(dr. Cahyono Kaelan, Ph.D, Sp.P.A.(K), Sp.S)
- 09.05 - 09.50 Uncovering the mystery of vascular anomaly
pathology
by **Anita Gupta, MD**
- 09.50 - 10.00 Q & A
- 10.00 - 10.10 Commercial Break
- 10.10 - 10.55 Hepatoblastoma: reporting and its differential
diagnosis
by **Juan Putra, MD**
- 10.55 - 11.40 GI biopsy interpretation in pediatric cases
by **Juan Putra, MD**
- 11.40 - 12.00 Q & A
- 12.00 - 13.00 Lunch Break
- 13.00 - 13.45 Molecular testing in pediatric
by **Kenneth Chang, MD**
- 13.45 - 14.00 Q & A
- 14.00 - 14.45 Cardiac pathology : valve diseases
by **Prof. Hatsue Ishibashi-Ueda, MD, PhD**
- 14.45 - 15.00 Q & A
- 15.00 - 15.20 Commercial Break
- 15.20 - 15.50 Soft tissue and bone pediatric
by **dr. Eviana Norahmawati, Sp.PA(K)**
- 15.50 - 16.20 Kidney mass in pediatric
by **dr. Hanggoro Tri Rinonce, PhD, Sp.PA(K)**
- 16.20 - 16.40 Q & A
- 16.40 - 17.10 Performance from IAPI's branch
- 17.10 - 17.15 Closing





Annual Scientific Meeting

INDONESIAN ASSOCIATION
OF PATHOLOGISTS

THE INTERNATIONAL ACADEMY
OF PATHOLOGY INDONESIAN DIVISION

DAY 2 SCHEDULE SEPTEMBER 4TH, 2022

- 08.00 - 08.45 Diagnostic approach of salivary gland tumors
by **Justin A Bishop, MD**
- 08.45 - 09.30 Update sinonasal tumors
by **Justin A Bishop, MD**
- 09.30 - 09.50 Q & A
- 09.50 - 10.00 Coffee Break
- 10.00 - 10.30 Salivary gland neoplasm INA experience
by **dr Ening Krisnuhoni, MS, Sp.PA(K)**
- 10.30 - 10.40 Q & A
- 10.40 - 11.00 Commercial Break
- 11.00 - 11.45 Odontogenic tumors-classification and diagnostic
approach
by **Prof. WM Tilakaratne**
- 11.45 - 12.00 Q & A
- 12.00 - 13.00 Lunch Break
- 13.00 - 13.45 Head and neck soft tissue tumors: diagnostic
challenges
by **Jason L. Hornick, MD, PhD**
- 13.45 - 14.00 Q & A
- 14.00 - 14.30 Odontogenic tumor INA experience
by **dr Suly Auline Rusminan, Sp.PA(K)**
- 14.30 - 15.00 Experience of head and neck cases in Indonesia
by **dr. Yayi Dwina Billianti, M.Biomed, Sp.PA(K)**
- 15.00 - 15.10 Q & A
- 15.10 - 16.40 Inauguration of fresh graduate pathologist



CARDIAC PATHOLOGY HEART VALVULAR DISEASES

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Malignancy of the heart is very rare. I wonder if the cardiovascular diseases are not familiar to general pathologists. However, needless to say, the heart is the most important organ for living. The cardiac dysfunction is life threatening and becomes predominant cause of death. The heart consists of cardiac muscle and cardiac skeleton such as cardiac valves (semi-lunar valves, atrioventricular valves) and great vessels. Heart valve disease is still a common cause of cardiovascular diseases, especially as age-related diseases.

Today I focus on heart valve diseases. Clinical characteristics of valve diseases are mostly stenosis or regurgitation. We, pathologists should investigate the causes of valve deformity. Gross examination is very important for cardiac valve diseases. The calcified location of valves or fusion of cusps are sometimes very helpful to distinguish the cause of valvular diseases such as rheumatic or congenital. Myxomatous degeneration which may be related to regurgitation or prolapse is grossly apparent. Microscopic evaluation is also useful. especially concern for infective endocarditis using by the elastic stain and Gram or periodic acid Schiff stain.

Today, I will present a lot of macro and microscopic photographs of various heart valve diseases. I hope that participants of this congress may enjoy them.

HEAD AND NECK SOFT TISSUE TUMORS: DIAGNOSTIC CHALLENGES

JASON L. HORNICK, M.D., PH.D.

*Director of Surgical Pathology and Immunohistochemistry, Brigham and
Women's Hospital*

Professor of Pathology, Harvard Medical School

Soft tissue tumors of the head and neck include a diverse group of rare neoplasms that pose significant challenges to surgical pathologists. Some of these tumor types show a predilection for (or characteristically arise in) the head and neck; others rarely occur at these sites. The differential diagnosis often includes much more common tumors that arise at these anatomic locations, including carcinomas and melanoma. This lecture will focus on some of the more common soft tissue tumors of the head and neck, highlighting characteristic histology, clues to diagnosis, and the application of ancillary testing to reach a specific diagnosis (especially immunohistochemistry).

SALIVARY GLAND & SINONASAL

Justin Bishop

Salivary gland histopathology is one of the most challenging areas in anatomic pathology. There are dozens of tumor and tumor-like categories, each with a broad range of morphological appearances. Moreover, there has been a recent explosion of molecular discoveries which have greatly impacted salivary gland tumor classification. An algorithm is presented. This approach, with careful attention to potential pitfalls, makes dealing with these lesions less daunting.

The sinonasal tract is a small anatomic area with a dizzying array of neoplasms, many of which only occur in this region. Even more challenging, in the sinonasal tract, various tumors which have remarkably different prognoses and treatments tend to appear very similar under the microscope. In the past decade, numerous molecular findings have completely revolutionized the classification of these peculiar tumors. This presentation serves as an update on emerging, newly-described sinonasal tract neoplasms.

ODONTOGENIC TUMORS-CLASSIFICATION AND DIAGNOSTIC APPROACH

Prof WM Tilakaratne

Odontogenic tumours (OT) are a heterogeneous group of tumours. Majority of OT are benign and the incidence of malignant OT is exceptionally rare. The tumours either arise from odontogenic epithelium, epithelium together with mesenchyme or mesenchyme only. The commonest odontogenic tumour, ameloblastoma has different clinicopathological types and histological variants. Conventional, peripheral, unicystic, metastasising and adenoid are the clinicopathological variants of Ameloblastoma. Adenoid Ameloblastoma is a new addition to WHO 2022 classification of Head and neck tumours. Histological variants include, follicular, plexiform, desmoplastic, acanthomatous, granular cell and basal cell Ameloblastoma. The other tumours in the epithelial category include, calcifying odontogenic tumour, adenomatoid odontogenic tumour and squamous odontogenic tumour. There is a controversy in the mixed category as ameloblastic fibro-odontoma and ameloblastic fibro-dentinoma is considered as a developing odontome in the 2017 classification. However, recent molecular evidence suggests that they probably are separate entities. There are significant changes to WHO classification in 2017 and some minor additions in 2022. Malignant category remains as odontogenic carcinomas, sarcomas and carcinosarcomas.

HEPATOBLASTOMA: REPORTING AND ITS DIFFERENTIAL DIAGNOSIS

Juan Putra, MD

Unlike in adults, about two-thirds of hepatic tumors in children are malignant. The most common malignant primary hepatic tumors is hepatoblastoma (HB) followed by hepatocellular carcinoma (HCC), with HB accounting for 90% of malignant tumors in children younger than 5 years of age. The lecture encompasses the clinical and pathological aspects of HB. Pathology reporting of biopsy and resection specimens, prior to and after chemotherapy, will be discussed. Cancer protocol templates provided by College of American Pathologists are useful resources for pathologists who encounter these cases. It is important to note that pathologists should not be using the HCC template for HB cases.

Occasionally, a consensus diagnosis for histologic subtype cannot be reached because of a broad pathologic spectrum of HB and HCC. The international consensus conference called these tumors hepatocellular neoplasm, not otherwise specified; they're also known as HB with HCC features and transitional liver cell tumors. Moreover, there has been confusion regarding small cell undifferentiated histology of HB and malignant rhabdoid tumor, two entities with distinct clinical outcomes. These challenging aspects of HB diagnosis along with its histologic differential diagnosis will be highlighted in this lecture.

GASTROINTESTINAL BIOPSY INTERPRETATION IN THE PEDIATRIC POPULATION

Juan Putra, MD

The interpretation of endoscopically obtained mucosal biopsies of the pediatric gastrointestinal (GI) tract often poses distinct challenges compared with adults. This lecture highlights various areas of pediatric GI pathology that may cause diagnostic difficulty for general pathologists.

Esophageal eosinophilia may represent a primary eosinophilic GI disorder or an inflammatory response to other conditions. Two most common clinical diagnoses for esophageal eosinophilia include eosinophilic esophagitis and gastroesophageal reflux disorder (GERD). The distinguishing pathologic features between these two entities will be discussed.

Barrett esophagus (BE) and intestinal metaplasia of gastroesophageal junction (IMGEJ) are rare in the pediatric population. Most patients had underlying conditions which put them at risk for GERD. The risk factors in children include esophageal atresia/tracheoesophageal fistula, neurodevelopmental disorders, and obesity. Diagnostic approach of IM and GEJ will be highlighted.

While most cases of gastritis are nonspecific, several distinct forms of gastritis have been described. These include infectious gastritis (e.g. *Helicobacter*), atrophic/autoimmune gastritis, lymphocytic gastritis, eosinophilic gastritis, and collagenous gastritis. The pattern-based algorithmic approach will be discussed.

Inflammatory bowel disease (IBD) is another important topic in pediatric GI pathology. General pathologists will need to gain sufficient familiarity with various pathologic aspects of IBD. The lecture will include histologic clues for IBD, distinct pathologic features between Crohn disease and ulcerative colitis, and differential diagnosis for IBD in general.

SOFT TISSUE AND BONE TUMORS IN PEDIATRIC

Eviana Norahmawati

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Saiful Anwar Hospital Malang*

Soft tissue and bone tumors are one of commonly found tumors in pediatrics. Sarcomas are the third most common malignancy in pediatric population. Most common benign tumor of soft tissue in pediatrics is vascular tumor such as *hemangioma* and *lymphangioma*, while most common benign tumor of the bone is *osteochondroma*. *Rhabdomyosarcoma* is the most frequently found malignant soft tissue tumor and *osteosarcoma* is the most frequently found malignant bone tumor in pediatric population.

Pathologists usually experience many difficulties in establishing diagnosis of soft tissue and bone pediatric tumors. This is due to types of the tumors vary greatly, while radiological image of the tumor is often non-specific, most of the tumors have similarity in histopathological features, and many of the tumors have several histopathological variants.

Accurate diagnosis of mesenchymal tumors in pediatric population can be accomplished in such condition as: working out correlation between histopathological, clinical, and radiological features (triple diagnosis); evaluating microscopic features based on predominant pattern and cellular morphology in careful & systematic manner; performing ancillary testing with immunohistochemistry panel, FISH or PCR, and also performing multidisciplinary collaboration as in conducting *Clinico Pathological Conferences*.

Key word: Soft tissue tumors, Bone tumors, Pediatric

A LOOK INTO VARIOUS UNUSUAL HEAD AND NECK TUMORS IN INDONESIA: EXPERIENCE FROM NATIONAL REFERRAL HOSPITAL

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Background:

Head and neck tumors are heterogeneous disease consisting of many subtypes with different treatment responses and clinical outcomes. In Indonesia, the most common diagnoses from nasopharynx biopsies include nasopharyngeal carcinoma, non-Hodgkin lymphoma, chronic nasopharyngitis, angiofibroma. In sinonasal track non keratinizing squamous cell carcinoma is common diagnosis. However, there are rare cases and new entities that have non-specific characteristics and are potentially underdiagnosed. The ability to diagnose those cases now holds promise for the development of patient-tailored treatment strategies and the determination of prognosis.

Objective:

The study aims to provide insights on four unusual head and neck tumor cases in Indonesia. The presentation includes clinical features, histopathology and immunohistochemistry analysis, also incorporation of some simple molecular technic, and correlation with other examinations to determine the diagnosis.

Case description:

Case 1

Male, 32 years old, underwent nasopharyngeal biopsy, with lobulated and small whorls tumor growth pattern, some cells with intranuclear inclusion upon histological analysis. Initial differential diagnosis included carcinoma, paraganglioma, olfactory neuroblastoma, and meningioma. Examination was followed by immunohistochemistry of AE1/3 (-), PR (+), EMA (+), KI-67 (low). The final diagnosis was meningioma meningothelial type.

Case 2

Female, 9 months old, with an erythematous mass in the nasal cavity. Histologically, there was tumor mass forming papilla and cystic pattern, there was also Hialin globul, and schiller duval bodies. Early differential diagnosis included yolk sac tumor, adenocarcinoma, and salivary gland neoplasm. The immunohistochemistry expression of SALL4 (+), AFP (+), CD30 (-), INI1(+). Her Alpha Fetoprotein (AFP) level was >20,000. The final diagnosis was an extragonadal yolk sac tumor.

Case 3

Male, 36 years old, with sinonasal mass extended to orbital. Histological analysis showed non keratinized squamous cell carcinoma, but because there was rhabdoid feature, so we do some Immunohistochemistry examination, and demonstrated expression of AE1/3 (+), Synapthopisin (+), Chromo (-), CD56 (-), INI1/SMARCB1 (-). The final diagnosis was SMARCB1 deficiency sinonasal carcinoma.

Case 4

Female, 51 years old, with recurrent sinonasal mass for 2 years. Specimens were obtained from partial maxillectomy surgery. Previous diagnosis from biopsy included salivary gland tumor: basal cell adenocarcinoma and non-keratinized squamous cell carcinoma. Histological features included adenoid cystic-like, basaloid cell, moderate dysplasia surface cell, keratinization at the deeper part, necrosis area, and heterologous component (cartilage). Complete immunohistochemistry examination was performed. Positive expressions for CK5/6, CK5, HMWCK, P63, P40, INI 1, p16, S100, SMA, KI-67 40%, and negative expressions for Synapthopisin, Chromogranin, CD117, B catenin were identified. HPV genotyping using flow through hybridization was performed and resulted in positive for HPV high-risk type 82. The final diagnosis was HPV-related multiphenotypic sinonasal carcinoma.

Conclusion:

There are several rare diagnoses in nasopharynx and new entities in sinonasal region that require further familiarization. Clinical and radiological correlations are essential in the diagnostic process, along with histopathology, immunohistochemical, and molecular examinations. Correct diagnosis is important since it carries prognostic and therapeutic consequences. Formulating correct diagnosis based on the updated WHO Head and Neck Tumor Classification 2022 may improve prognostication and patient assignment to therapy beyond current standards of care.

Keywords: head and neck tumor, meningioma meningothelial, extragonadal yolk sac tumor, SMARCB1 deficiency sinonasal carcinoma, HPV-related multiphenotypic sinonasal carcinoma

SALIVARY GLAND NEOPLASM, INDONESIA EXPERIENCE

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Neoplasma kelenjar liur adalah salah satu jenis neoplasma yang berasal dari jaringan kelenjar liur, bagian dari kelompok tumor kepala dan leher. Di Indonesia sendiri, meskipun tidak ditemukan data jumlah kasus baru dari keseluruhan neoplasma kelenjar liur, namun terdapat 2.666 kasus kanker kelenjar liur pada tahun 2020.

Hasil penelusuran data di Departemen Patologi Anatomi FKUI/RSCM dalam kurun waktu 2015-2019 diperoleh 143 kasus neoplasma kelenjar liur dengan perbandingan jumlah neoplasma ganas sebanyak 75 kasus dan neoplasma jinak sebanyak 68 kasus. Lebih banyak subjek yang dikategorikan sebagai usia tua (76 kasus) dibanding usia muda (67 kasus) dengan median usia 49 tahun, serta jenis kelamin perempuan diperoleh lebih banyak (79 kasus) dibandingkan laki-laki (64 kasus). Lokasi tersering keganasan ditemukan pada kelenjar liur mayor.

Morfologi keganasan kelenjar liur sering memberikan gambaran morfologi yang terkadang mirip satu sama lain. Misalnya, gambaran kribriiform bisa ditemukan pada karsinoma adenoid kistik serta *polymorphous adenocarcinoma*. Gambaran tubular dapat ditemukan pada berbagai jenis tumor kelenjar liur baik ganas maupun jinak. Namun demikian, gambaran morfologi masih menjadi pegangan dalam penegakkan diagnosis. Mengingat pemeriksaan imunohistokimia juga menghasilkan positivitas yang *overlapping*.

Bagaimana melakukan analisa morfologi tumor secara sistematis? Pertama dengan memperhatikan lokasi tumor apakah berasal dari kelenjar liur mayor atau minor seperti sebagaimana diketahui sebagian besar tumor yang berasal dari kelenjar liur minor bersifat ganas. Kedua, memperhatikan morfologi tumor apakah berasal dari asinus, sel basal, sel mioepitel atau sel campuran dengan cara memperhatikan bentuk inti, rasio sitoplasma dan inti, serta gambaran sitoplasma apakah *clear*, eosinofilik atau bergranular. Selanjutnya memperhatikan pola morfologi tumor. Pemeriksaan imunohistokimia akan menjadi penting apabila kita sudah menganalisa secara akurat morfologinya dan namun sulit dibedakan. Pada kondisi ini, pemeriksaan imunohistokimia bisa membantu dalam penegakkan diagnosis.

ODONTOGENIC TUMOR, INDONESIAN EXPERIENCE

Suly Auline Rusminan

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Odontogenic tumours are rare, constituting <1% of all oral tumours. We reported a study of odontogenic tumour and maxillofacial bone tumor at Dr. Mohammad Hoesin Palembang/Medicine Faculty of Sriwijaya University, Indonesia, over a period 2016 until July 2022. We collected the frequency and distribution according to age, gender, site, and histopathologic types of those reported. Of 163 cases, the most common cases of odontogenic tumor are ameloblastoma, 96 case, fibrous dysplasia 23 cases, ossifying fibroma 20 cases, ameloblastic carcinoma 7 cases, calcifying odontogenic tumor 5 cases, adenomatoid odontogenic tumor 4 cases, osteoma 3 cases, osteochondroma 2 cases, ameloblastic fibrosarcoma 2 cases, and central giant cell granuloma 1 case.

Ameloblastoma mix type is the most common subtype, followed by follicular type 22%, unicystic type 18%, plexiform type 11%, granular type 4%, acanthomatous type 2%, and multicystic type 2%. There are 2 peak incidences of ameloblastoma, in first and second decades, and in fourth and fifth decades of life. At first and second decades, males slightly more frequently affected than females, 9:1. But at fourth and fifth decades most common on female 17:12. Patient age range of 7-11 year, mean patient age at diagnosis is about 41-50 years. Location of ameloblastoma is usually arise at the mandible 69%, at maxilla 19%, at anterior skull base 6%, and paranasal sinuses 6%.

Ameloblastoma, conventional, has 5 subtype, Follicular, Plexiform, Acanthomatous, Granular cell, asal cell, and Desmoplastic. Ameloblastoma at the mandible has BRAF mutation 75.5%, 43% RAS mutation at the maxilla, 14% FGFR2 mutation at the maxilla, 53.5% SMO mutation at the maxilla. But ameloblastoma, unicystic at the mandible has 94% BRAF-wild type cases and 3% SMO mutation.

Distribution case of ossifying fibroma by gender is not significant, no gender predilection, 11 case on male and 9 case on female. Cyst of the jaw case are dentigerous cyst 22 cases, odontogenic keratocyst 12 cases, calcifying odontogenic cyst 5 cases, radicular cyst 7 cases.

Ameloblastic carcinoma is odontogenic malignancy combining the histologic features of ameloblastoma and cytologic pleomorphism. The incidence is extreme, and on mandible posterior. Calcifying odontogenic cyst (COC) is a developmental odontogenic cyst characterized histologically by ghost cell, which often calcify. Essential and desirable criteria is unilocular cyst and numerous ghost cells, with palisaded hyperchromatic basal cells and dentinoid. The most important is differential diagnosis of COC is dentinogenic ghost cell tumour (DGCT). DGCT is solid variant of COT, benign but locally infiltrative, characterized by ameloblastoma-like sheets and epithelium with prominent ghost cell keratinization and varying amounts of dentinoid in the stroma.

KIDNEY TUMOR IN PEDIATRIC

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In children, age-standardised incidence rate (ASR) of kidney tumor is 8.3 per million, with the highest in North America and Europe (9-10 per million) and the lowest in most Asian regions (4-5 per million). In adolescents, its ASR is even lower, 1.4 per million. The five most common types of kidney tumors in children are nephroblastoma, clear cell sarcoma (CCS), malignant rhabdoid tumor (MRT), congenital mesoblastic nephroma (CMN), and renal cell carcinoma (RCC). Because of its rarity and the microscopic features similarity, pediatric kidney tumors are difficult to distinguish from one another, particularly in small biopsies. A systematic approach is needed to establish the definitive diagnosis. First, renal tumors should be classified into epithelial, mesenchymal, and undifferentiated patterns based on histomorphology. Nephroblastoma (epithelial component), nephrogenic rest, metanephric adenoma, RCC, translocation associated RCC, and papillary RCC are included in the tumor group with an epithelial pattern, whereas nephroblastoma (mesenchymal component), CCS, CMN, and metanephric stromal tumor are included in the tumor group with a mesenchymal pattern. Nephroblastoma (blastemal component), MRT, neuroblastoma, desmoplastic small round cell tumor, and Ewing sarcoma are classified into undifferentiated pattern group. Second, immunohistochemistry needs to be done to rule out the differential diagnosis in each group. Antibodies that are valuable in these cases include WT1, AMARCR, pankeratin, CK7, TFE3, TFEB, melanocytic markers, BRAF V600E, NGFR, BCOR, Cyclin D1, INI1, CD34, BCL-2, CD99, neuroendocrine markers, desmin, PAX8, and NB84. In order to be cost effective, the number of antibodies used should be adjusted to the differential diagnoses made.

Keywords: renal tumor, children, histopathology, imunohistochemistry

EVALUATION OF APPENDICEAL NEUROENDOCRINE TUMOR (NET) USING CHROMOGRANIN A AND SYNAPTOPHYSIN AS NEUROENDOCRINE MARKERS

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Background: *Appendiceal neuroendocrine tumor (Appendiceal NET)* is neoplasm of epithelial cells that differentiates based on neuroendocrine cells. *Appendiceal NET* is the third most common gastrointestinal neuroendocrine tumor after the small intestine and rectum one. *Appendiceal NET* is often found incidentally on histopathological examination of appendectomy tissues. Immunohistochemistry of chromogranin A and *synaptophysin* are the most tumor markers in *appendiceal NET*.

Materials and methods: This is a descriptive study with a cross sectional approach on 52 samples of histopathological appendicitis preparations stained with hematoxylin and eosin (H&E) and immunohistochemistry chromogranin A and *synaptophysin* as markers of *appendiceal NET*

Results: *Appendiceal NET* in the appendix is often found incidentally in histopathological preparations of appendicitis. The suspect of *appendiceal NET* in the appendix can be confirmed by immunohistochemical chromogranin A and *synaptophysin* as markers of *appendiceal neuroendocrine tumors*.

Conclusion: *Appendiceal NET* was found in one histopathological sample with was as diagnosed as appendicitis

Keywords: *appendiceal neuroendocrine tumor, appendix, appendicitis, chromogranin A, synaptophysin*

THE CORRELATION OF THE EXPRESSION OF PD-L1 AND CYCLIN D1 WITH HISTOPATHOLOGICAL GRADING IN COLORECTAL ADENOCARCINOMA

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Background: One of the prognosis factors of colorectal adenocarcinoma is histopathological grading. Expression of programmed death-ligand 1 (PD-L1) and cyclin D1 has the potential to be used as a predictive and prognostic factor for tumor cells in colorectal cancer.

Objective: This study aims to determine the correlation between the expression of PD-L1 and cyclin D1 with histopathological grading in colorectal adenocarcinoma

Methods: An analytical observational study with a cross-sectional approach using a sample of 34 paraffin blocks of colorectal adenocarcinoma preparations at the Anatomical Pathology Laboratory Dr. Soetomo General Academic Hospital Surabaya for the period January 2016 to December 2020. The assessment parameters were the percentage of PD-L1 and cyclin D1 antibodies that were stained positively on the membrane and nucleus of tumor cells and histopathological grading was assessed based on hematoxylin-eosin (HE) staining.

Result and Discussion : PD-L1 expression was positively correlated with histopathological grading ($p=0.006$). Cyclin D1 expression did not correlate with histopathological grading ($p=0.891$). Statistical analysis showed no significant correlation between PD-L1 expression and cyclin D1 ($r = 0.188$; $p = 0.286$).

Conclusion : Positive PD-L1 expression will be in line with the increase in histopathological grading. There was no correlation between cyclin D1 expression and histopathological grading. There was no correlation between the expression of PD-L1 and cyclin D1 with histopathological grading in colorectal adenocarcinoma.

Keywords: PD-L1, Cyclin D1, Grading Histopathology, Cancer, Adenocarcinoma colorectal

CONCORDANCE BETWEEN FINE NEEDLE ASPIRATION BIOPSY AND GENEXPERT MTB/RIF ON DIAGNOSING TUBERCULOSIS IN DR. HASAN SADIKIN GENERAL HOSPITAL BANDUNG FROM JANUARY 2017 TO DECEMBER 2021

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Background: Tuberculosis remains an important health issue in Indonesia and has the second highest TB burden in the world. There are several diagnostic tools used for diagnosing Tuberculosis, such as *Fine Needle Aspiration Biopsy* (FNAB) and GeneXpert MTB/RIF (GeneXpert) test.

Objective: The aim of this study is to analyse the concordance between the results of FNAB and GeneXpert on diagnosing Tuberculosis.

Methods: FNAB and GeneXpert results of presumptive Tuberculosis patients in Dr. Hasan Sadikin General Hospital Bandung from January 2017 to December 2021 were collected and analysed using Cohen's kappa test to determine the concordance rate between the diagnostic tools.

Results and Discussion: Data from 476 FNAB and GeneXpert patient results consisted of 44.5% males and 55.5% female. Lymph nodes were the most common site of FNAB (95.7%), and the most common age range was aged 21-40 (41%). Data analysis showed that 102 (21,4%) Tuberculosis patients diagnosed from FNAB had GeneXpert-positive and 135 (28,4%) non- Tuberculosis patients diagnosed from FNAB had GeneXpert-negative. However, 220 (46,2%) Tuberculosis patients from FNAB had GeneXpert-negative and 19 (4%) non-Tuberculosis patients diagnosed from FNAB had GeneXpert-positive. The calculation of Cohen's kappa was 0.144 (95% CI, $p < 0.001$), showed a poor concordance between the tests.

Conclusion: There was poor concordance between the FNAB results and GeneXpert results on diagnosing Tuberculosis. Therefore, the combination of FNAB and GeneXpert test were still recommended to diagnose Tuberculosis accurately.

Keywords: FNAB, GeneXpert MTB/RIF, Tuberculosis

CHARACTERISTICS OF OCULAR SURFACE SQUAMOUS NEOPLASIA IN CICENDO NATIONAL EYE HOSPITAL FROM 2019 TO 2021

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Background: Ocular surface squamous neoplasia (OSSN) comprises a wide spectrum of dysplastic alterations of the squamous epithelium of the conjunctiva, ranging from conjunctival intraepithelial neoplasia to squamous cell carcinoma (SCC).

Objective: To describe clinicopathological data of OSSN and Conjunctival SCC in Cicendo National Eye Hospital from January 2019 to December 2021.

Methods: OSSN and Conjunctival SCC data from 2019 to 2021 were reviewed. The statistical analysis of patient's age, gender, tumor location and classify tumors had done according to 2018 WHO classification.

Results and Discussion: A total of 91 cases were collected. The most tumor identified was OSSN (58%), followed by conjunctival SCC (42%), The most common classification OSSN was severe (52,8%) followed by moderate and mild (30,2% and 17%, respectively). The age range was variable from 16 to 89 years old, with average age was 49,07. Well-differentiated type SCC was the most common type (42%) followed by poorly differentiated type (37%). The age range was variable from 35 to 94 years old, with the average of 59,31. Both OSSN and conjunctival SCC were more common in male (66% and 68%, respectively) and the most common affected site was left conjunctiva (55% and 74%, respectively).

Conclusion: OSSN as severe dysplasia was more often diagnosed in younger adults, whether SCC was more commonly found in elderly patients. There are no differences of the most common location and gender in OSSN and SCC, which were left conjunctiva and male, respectively.

Keywords: Conjunctival intraepithelial neoplasm. Ocular surface squamous neoplasia. Squamous cell carcinoma. Eye

CLINICOPATHOLOGICAL CHARACTERISTIC OF NASOPHARYNGEAL CARCINOMA IN RSHS 2020-2021

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Background: Nasopharyngeal Carcinoma (NPC) is an epithelial malignancy which develops from Rosenmuller's fossa. Endemic in the southern China where the incidence is 15-50/100,000 inhabitants, and also Indonesia, Malaysia and South East Asia.

Objective: This study aimed to identified NPC age distribution, sex, imaging modality, histopathological diagnosis, and treatment in Hasan Sadikin Hospital, Bandung, Indonesia.

Methods: This was a descriptive study and the data were collected from Anatomical Pathology, radiotherapy, and chemotherapy medical records from period January 2020 to December 2021

Results and Discussion: The result showed 159 cases between the period. Majority age were between 51-60 years-old (33,33%). Median age is 48. Of all patients, 62,26 % were men and 37,73% were women. The most frequently used imaging modality is CT nasopharynx. Undifferentiated subtype of NPC were the most common histologic type affecting 64,77 % of patients. 50,31% of patients received radiotherapy combined with chemotherapy.

Conclusion: As conclusion, the majority of NPC cases were reported from men, 51-60 yearsold age group and had undifferentiated histopathology subtype.

Keywords: nasopharyngeal carcinoma, clinicopathological profile

CLINICOPATHOLOGICAL CHARACTERISTICS OF THYMOMA IN HASAN SADIKIN GENERAL HOSPITAL FROM 2016 TO 2021

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Background: Thymoma is a thymic epithelial tumor that arises from mediastinal or ectopic thymus, characterized by thymus-like organoid differentiation. Thymoma comprises of thymoma type A, B1, B2, B3, AB, and some lesser, uncommon type such as micronodular and metaplastic thymoma.

Objective: The aim of this study is to describe the clinicopathological data of thymoma and its subtypes in Hasan Sadikin General Hospital (RSHS) from January 2016 to December 2021.

Methods: Data of thymoma cases from January 2016 to December 2021 are collected and reviewed. The analysis are based on tumor types along with its location, patient's age, and gender. These data are analyzed in accordance with 2021 WHO classification of thoracic tumors.

Results and Discussion A total of 70 cases of thymomas are collected. These data are diagnosed mostly from hematoxylin-eosin preparation. Thymoma B1 is the most common histologic type of tumors variant with 22 cases (31.4%), continued with thymoma AB with 17 cases (24.3%). Thymoma B3 is the least common with 4 cases (5.7%). Most tumors are located in an unspecified mediastinum location with 24 cases (34.3%). Female is more common (38 cases) than male (32 cases). Patient age range is 15-87 years, with average of 43.9 years.

Conclusion: There are 70 thymoma cases that have been collected from RSHS between 2016-2021. The most common tumor type is thymoma B1. These tumors are mostly affected patients in 40-50 decades with female is slightly more common than male with 1.2:1 ratio.

Keywords: thymoma, mediastinum, thymic neoplasms, clinicopathology.

CHARACTERISTIC HISTOPATHOLOGY AND SUBTYPE MOLECULAR BREAST CARCINOMA IN DR HASAN SADIKIN GENERAL HOSPITAL BANDUNG PERIOD January 2021-June 2022

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Background: Breast carcinoma (BC) is one of the most common human neoplasms, accounting for approximately one-quarter of all cancers in females worldwide. In recent years, BC has become divided into four distinct intrinsic biological subtypes with varying prognosis. Therefore, recent studies have focused on defining more detailed biological characteristics to ensure the highest chance of benefit and the least toxicity from a specific treatment modality.

Objective : The aim of this study is to describe the characteristic histopathology and subtype molecular BC at dr. Hasan Sadikin General Hospital (RSHS), Bandung.

Method: This study was a cross-sectional study of BC from January 2021 to June 2022 with the total sampling method and descriptive analysis of patients age, tumor size, histopathology variant, DCIS status, Infiltration of epidermis, lymphovascular invasion, microcalcification area, lymph node metastasis status, Miller Payne status, and molecular subtype according to WHO (2019) classification.

Result and discussion: From the total of 46 samples collected, the average age was 49,2. The most common histopathology variant is invasive carcinoma of no special type, with DCIS status (35%), presence of TILS > 5% (36%), Miller Payne grade 2 (30%), and the most common molecular subtype are Luminal B HER-2 negative (42%) and triple negative (20%).

Conclusion: The most common type of BC in RSHS, in January 2021-June 2022 is invasive carcinoma of no special type with high grade. The mean age of this type is 49,2 years, with Luminal B HER-2 negative as the most molecular BC type, followed by the Triple Negative type. These results have poor prognosis.

Keywords : Breast carcinoma, histopathology variant, molecular subtype variant.

CLINICOPATHOLOGICAL CHARACTERISTICS OF MALIGNANT PEDIATRIC SOLID TUMOURS IN HASAN SADIKIN GENERAL HOSPITAL FROM JANUARY 2018- JUNE 2022

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Background: Malignant pediatric solid tumours represent about 30% of childhood neoplasms and currently the incidence has increased. It is important to know the characteristics of malignant pediatric solid tumours to established diagnosis correctly.

Objective: To identify the clinicopathological characteristics of malignant pediatric solid tumours in Hasan Sadikin General Hospital from January 2018-June 2022.

Methods: The subjects of this retrospective descriptive study were pediatric patients who registered at Hasan Sadikin General Hospital cancer registry from January 2018-June 2022. All data contained demographic status, tumours origin, diagnostic methods and histopathological types.

Results and Discussion: Three hundred sixty seven pediatric patients were included in this study, consisted of 59.13% male and 40.87% female; 7.9% were 0-1 years old, 39.78% were 2-11 years old, and 52.32% were 12-18 years old. The most common malignant pediatric solid tumours were haematolymphoid tumours(30.5%) with the cervical lymph node as the common site, followed by soft tissue tumours(20.7%), bone tumours(14.7%), germ cell tumours(7.7%), and peripheral neuroblastic tumours(5.7%). Tumour samples carried out mostly by excision biopsy(68.9%) followed by FNAB(22.1%), and resections(9%). Only 39.2% tumours were confirmed by imunohistochemistry examination. The most common histopathological type of haematolymphoid tumours was lymphoma.

Conclusion: The most common histopathological type of malignant pediatric solid tumor was lymphoma, mean age 12-18 years old with male gender predilection and most tumours samples carried out by excision biopsy.

Keywords: characteristics, malignant solid tumor, pediatric.

ACCURACY OF DIAGNOSING MUSCULOSKELETAL LESION ON FINE-NEEDLE ASPIRATION CYTOLOGY IN DR. SARDJITO GENERAL HOSPITAL, YOGYAKARTA, INDONESIA

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Background: Fine needle aspiration (FNA) cytology is a relatively non-invasive method for diagnosing musculoskeletal lesion. Diagnosis using FNA is very challenging in some musculoskeletal cases.

Objective: In this study, we evaluated the diagnostic utility of FNA in musculoskeletal lesion.

Material and methods: 180 FNA cases of musculoskeletal lesion with or without imageguidance between 2018 and 2021 were retrieved from the archives of the Sardjito Hospital Yogyakarta and reviewed. This was a retrospective cross-sectional study. The obtained data were statistically analyzed for its sensitivity, specificity, and accuracy.

Results and Discussion : Out of 180 cases, a definite diagnosis with histopathological confirmed was given in 90 cases (50%), 33 cases true positive, 43 cases true negative, 2 cases false positive and 10 cases false negative. The overall diagnostic sensitivity, specificity, and accuracy of FNA in musculoskeletal lesion was 77,3%, 95,7% and 86,8%. In cases of cytology that have similar features, FNA can lead to misinterpretation, radiological picture and clinical information is needed.

Conclusion: FNA is efficient and effective for early diagnosis musculoskeletal lesion. FNA can be used as an option to help diagnosis because it has high specificity and accuracy.

Keywords: FNA; musculoskeletal lesion; accuracy

ROLE OF DIRECT IMMUNOFLUORESCENCE IN THE DIAGNOSIS OF SKIN LESIONS

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Background: Direct immunofluorescence (DIF) assays in dermatopathology have been suggested to be a powerful tool in aiding diagnostic processes. In this study, we aim to test how well DIF works in conjunction with standard hematoxylin-and-eosin-based (HE) histopathological examinations in our diagnostic center.

Methods: DIF archives from the Department of Anatomical Pathology of Dr. Sardjito Hospital from 2021 to 2022 were retrieved, and a total of 77 dermatology cases were identified. The cases were grouped as vesicobullous diseases (n =38), lupus erythematosus (n =30), lichen planus (n =2), and vasculitis (n =7). The initial HE-based examination and its subsequent DIF result from each case were labelled as either concordant or non-concordant in relation to the case's clinical diagnosis. The data concordance was analyzed using Cohen's Kappa test, as a whole and within each diagnosis.

Results: The results of DIF and HE examinations in all 77 cases were found to have a good agreement (observed agreement =87%, K =0.71, 95%CI =0.51-0.87). Good agreements were also found within vesicobullous diseases (observed agreement =95%) and lupus erythematosus (observed agreement =80%) groups, but not in the vasculitis group. Two cases in the lichen planus group were found to have a concordant HE and DIF. In the events of HE examination and clinical diagnosis non-concordance, 71% were found to have the DIF supporting the HE results.

Conclusion: DIF has a significant role as a diagnostic adjunct for challenging cases or in the event of non-concordance between a working clinical diagnosis and its HE results.

Keywords: immunofluorescence, skin biopsy, vesicobullous, lupus erythematosus, lichen planus, vasculitis

CHARACTERISTIC OF WELL DIFFERENTIATED LIPOSARCOMA

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Background: Liposarcoma is one of the most common soft tissue sarcoma, accounting for approximately 12.8% of all sarcomas, while Well-differentiated liposarcoma (WDL) is the most common histology subtype of Liposarcoma accounting for 40%. It is low-grade, slow-growing, and locally aggressive tumours, with a propensity for local recurrence. The local recurrence rate depends on size and exact location, one study showed 91% for the retroperitoneal cases.

Objective: We report the clinical outcomes and recurrency of WDL in Kariadi General hospital during 2016-2018

Methods: This study was conducted on small patient groups, focusing on WDL subtypes. All patients treated for WDL between 2016-2021 at dr. Kariadi General Hospital, were identified based on pathology reports, and 32 data was collected retrospectively

Results and Discussion: Twenty-four patients were identified, including 11 men and 13 women. The median age was 55.2 years (range, 23–76 years). The tumor sites included pelvis, some with extended to femur (n = 13), mediastinum (n=3), intraabdomen (n=4), intraoculi (n=1), retroperitoneum (n=1), testis (n=1), and trunkus with extended to intrathoracic region (n=1). Seven patients developed local recurrent. Two patients died of the diseased at 3-year follow up.

Conclusion: WDL is most common in pelvic region, occur in median age 5th decade. This studi, showed local recurrent (24%) and death 3-year follow up (8,3%)

Keywords/ Kata Kunci: Well Differentiated Liposarcoma, Survival, Characteristic

IMMUNOEXPRESSION OF TRANSFORMING GROWTH FACTOR- β (TGF- β) AND SMAD IN PHYLLODES TUMOR

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Background : Epithelial cells are thought to be involved in the regulation of changes in the stromal cells in the phyllodes tumors, so it can be estimated that this process is involved in epithelial-mesenchymal transition (EMT). Transforming growth factor (TGF- β) and Smad has been shown to play an essential role in EMT in breast cancer.

Objective : The aim of this study is to analysis the immunoexpression of TGF- β and Smad phyllodes tumours of the breast.

Methods: This study is an observational analysis with the cross-sectional method. After the histologic grade of the samples was reviewed, immunohistochemistry examination for TGF- β and Smad was performed

Results and Discussion : According to 41 cases of PT for patients aged between 18 and 63 years, 2 cases bilateral and 8 cases of recurrence. PT mainly shows that high distribution of immuoexpression TGF- β and Smad in malignant PT category. A significant correlation was observed between histopathological grading of PT ($p=0.002$, $R=0.564$). It occurs in neoplastic cells that previously underwent genetic and epigenetic changes, especially in genes that support tumor cell development. These changes can be in the form of epithelial-mesenchymal transitions or occur because of mesenchymal-epithelial crosstalks. The influence of EMT factors is thought to be partly responsible for changes in tumor filodes mesenchymal cells.

Conclusion : There is an increase in TGF- β and Smad in high grade PT, so it can be considered the regulation of EMT in PT.

Keywords : Transforming Growth Factor- β , Smad, Phyllodes, Breast

A RARE VARIANT OF BREAST CARCINOMA: GLYCOGEN-RICH CLEAR CELL CARCINOMA

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Background: Invasive breast carcinoma is the most common cancer in woman. Glycogen-rich clear cell carcinoma is a rare type of Invasive Breast Carcinoma of No Special Type (IBC-NST) with incidence range is 0,01 % - 3%. To date, prognosis of glycogen-rich clear cell carcinoma remains controversial

Case Description: A 70 years old woman is complaining about painful mass in her left breast. Physical examination revealed mass in left breast, papilla retraction and enlargement of multiple left axillary lymph nodes. Mammography examination revealed irregular and solid, micro lobulated partially spiculated margin and hypoechoic mass in retro nipple left breast. The patient underwent modified radical mastectomy. Histopathology examination showed tumour growth in nests pattern with fibrous connective tissue in between, consisted of polygonal anaplastic cells with abundant and clear cytoplasm. Intracytoplasmic granules were PAS positive. Immunohistochemistry staining showed ER and PR stained positive, HER2 stained negative and Ki67 stained positive with index proliferation was 40%.

Discussion and Conclusion: Glycogen-rich clear cell carcinoma is a rare carcinoma of breast. Tumour cells must have abundant fine granular clear cytoplasm and contain of glycogen that is PAS positive and PAS-diastase sensitive. ER, PR and HER2 status are vary. Most of cases have ER positive, PR negative and vary in HER2 status. Holistic approach including clinical features and radiologic findings, confirmed by histopathology, special staining method and immunohistochemistry can help to confirm the diagnosis and patient's prognosis.

Keywords: Breast cancer, Glycogen-rich clear cell carcinoma

TUBULAR ADENOMA OF THE BREAST

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Background: Tubular adenoma is a benign tumor originating from the epithelium of the breast, tubular adenoma is rarely found around 0.13%-2.9% of all benign breast tumors.

Case Description: We reported case a woman 39 years old. Came at private hospital in Medan with complaints of lumps in the right breast, which the patient experienced 5 months. Palpasi examination of the tissue resulting lumps in the right breast the mass is well demarcated, mobile, tender. On macroscopic examination, the tissue from the right breast the mass, 1x1 cm in size, mobile, solid, gray in color, and labeled by 249721. Microscopically show proliferation of masses in the breast without an epithelial lining, appear solid tumor masses with well-defined boundaries consisting of glandular proliferation of acinar structures, some tubular, relatively uniform. with columnar (luminal) and cuboidal (myoepithelial cells) epithelial linings. The morphology of the nucleus is round and oval, smooth chromatin, eosinophilic cytoplasm. The lumen of the gland contains an eosinophilic amorphous mass and is partially empty, the proliferative glands are partially separated by thin fibrous septa with light infiltration of lymphocytes. accompanied by vascular dilatation and congestion. There are no signs of malignancy in this preparation.

Discussion and Conclusion: Based on the histopathological examination of the mass in the right breast, the patient was diagnosed as a tubular adenoma of the breast. ICDO 8211/0. Topographic morphology C.50.9

Keywords: tubular adenoma; Breast; Breast mass.

INVASIVE BREAST CARCINOMA IN MALE: A RARE CASE A Case Report

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Background: Invasive breast carcinoma in male is rare. The incidence is <1% of breast cancers and <1% of cancers in males. The purpose of this paper is to report a case of invasive breast carcinoma in male. This case is the first time in our center.

Case Description: We herein report a case of a 69-year-old man with a lump in the right breast with an ulcer for 1 year. Ultrasound results showed an irregular hypoechoic lesion with spiculated margin measuring 1.2x1.1x1.1 cm in the right axillary subcutis suspected a malignant mass. Multiple lymphadenopathies in right and left axillary regions were also found. Histopathological examination of the biopsy without lymph nodes revealed a proliferation of neoplastic cells that formed a single file and linear pattern (tubular pattern <10%). The cells infiltrated the stroma to the epidermis. Morphological features showed mild to moderate nuclear pleomorphism with the mitotic activity of 8/10 HPF. Immunohistochemical examination revealed cytokeratin, ER and PR positive, HER2 positive (+2), and Ki67 60%.

Discussion: Invasive breast carcinoma of the male is a rare malignant epithelial tumor and is understudied. Due to rare cases, it is often confused with other types of malignancy. It also has a tendency to present in higher clinical staging with lymph node metastases.

Conclusion: Based on clinical data, laboratory, histopathological and immunohistochemical examination this case was concluded as Invasive Breast Carcinoma grade 2. Although rare, breast carcinoma can still occur in men. Increased awareness, proper diagnosis, and treatment are needed for a better prognosis.

Keywords: breast carcinoma, male, histopathological, immunohistochemistry

ACQUIRED TUFTED ANGIOMA / KAPOSIFORM HEMANGIOENDOTHELIOMA WITH KASABACH-MERRIT SYNDROME

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Background: Tufted angioma (TA) or Angioblastoma of Nakagawa or identic to Kaposiform Hemangioendothelioma (KHE) is a rare endothelial vascular neoplasm. Occur in infancy and children, rarely in older children, without sex or race predilection. In 2015, only 158 cases are in English literature. This case is reported due to its rarity and importance in differentiating KHE from TA.

Case Description: A 16-year-old female with a lump on her upper left back since 5 years ago. Started as a small bruise-like lump that grew in time. Intermittent needle-prick pain was felt. On physical examination, the lump was on the left quadrant of the back, 30x20x10cm, undefined border, firm, irregular surface with scattered redness, and moderate tenderness to touch. A biopsy incision was done and sent to PA laboratory for analysis. A specimen of 2x1.3x0.5cm, irregular, white-gray, firm-solid consistency was received. A tumor mass consisting of proliferated capillaries with glomeruloid appearance/canon ball, staghorn vessels, lobules, and round nests showing dilated lymphatics with half lumen containing fibrin on dermis to subcutaneous fat. Endothelial cells proliferating on its capillaries. Microscopic images conclude that the morphology is equal to Acquired Tufted Angioma/Kaposiform Hemangioendothelioma, with differential diagnoses of infantile hemangioma.

Discussion & Conclusion: To exclude the differential diagnosis, the immunohistochemical examination was performed. Positive staining of CD31, CD34, ERG, and D2-40 with negative staining of GLUT-1 and HHV8 in addition to morphological image marks the diagnosis of tufted angioma/kaposiform hemangioendothelioma, excluding a hemangioma and Kaposi's sarcoma.

Keywords: Tufted-angioma; Kaposiform-hemangioendothelioma; vascular neoplasms; Pediatric vascular tumor.

MYXOID LIPOSARCOMA

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Background: Musculoskeletal sarcoma is a heterogeneous group of rare malignant tumors, involving bone and soft tissue. Liposarcoma is a soft tissue malignancy with a 20-30% incidence of all musculoskeletal sarcoma and 5% of adult soft tissue sarcomas, in the absence of significant gender predilection tendencies. Although the incidence of liposarcoma often occurs in the fourth to fifth decade of life, myxoid liposarcoma (MPLS) is a subtype of liposarcoma that most commonly occurs in children and adolescents.

Case Description: There was reportedly a case of a 20-year-old man. In the histopathological picture it appears that the mass consists of the proliferation of diffused scattered lipoblast cells in the myxoid stroma of varying shape and size, the enlarged nucleus of the oval round shape is located in the middle of partly on the edge forming a signet ring image, rough chromatin, partially vacuolated clear cytoplasm, mitosis easily found more than 20 / HPF of view. There is also a proliferation of distinctive branched capillary blood vessels (chicken wire).

Discussion and Conclusion: Based on the results of clinical examination, macroscopic and microscopic, concluded as myxoid liposarcoma Coded with ICD-O 8852/3, topography C49.0

Keywords: sarcoma, myxoid liposarcoma, chicken wire.

EMBRYONAL RHABDOMYOSARCOMA: A RARE CASE REPORT WITH MIDDLE EAR LOCATION

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Background: Embryonal Rhabdomyosarcoma is a subtype of rhabdomyosarcoma that is aggressive and often found in boys with a good prognosis but rarely occurs in the middle ear. We report a case of Embryonal Rhabdomyosarcoma in the middle ear with a poor prognosis.

Case Description: A 3-year-old boy with a lump in the middle ear accompanied by paralysis of the right side of the face two months before coming to the hospital Dr.M.Djamil Padang. History of having lumps in the same location four months before, with a diagnosis of epithelial polyps. Two months after the first biopsy, the lump reappeared with facial paralysis. HRCT scan of the mastoid showed a soft tissue mass. The patient underwent another tumor mass biopsy. Histopathological examination showed heterogeneous tumor cells with oval to spindle-shaped nuclei, eosinophilic cytoplasm, and 'tad pole' cell appearance in myxoid stroma. Immunohistochemical examination of desmin showed positively stained tumor cells in the cytoplasm, and myogenin stained positively in the nucleus. The result of the histopathology examination was Embryonal Rhabdomyosarcoma

Discussion and Conclusions: Embryonal Rhabdomyosarcoma is more aggressive when it is in the middle ear. This can increase tumor progression, thus worsening the prognosis. Pathologists' participation is needed for evaluating and diagnosing tumors because the management and prognosis also depend on the histology of the tumor.

Keywords: *Embryonal Rhabdomyosarcoma, middle ear, prognosis.*

ALVEOLAR SOFT PART SARCOMA OF THE TONGUE IN A 6-YEAR-OLD GIRL: A CASE REPORT

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Introduction: Alveolar soft part sarcoma is a rare tumor of uncertain histogenesis. In children, the most common sites of origin are the head and neck region, especially the orbit and tongue.

Case report: A 6-year-old girl was referred to the surgical department in the General Hospital of Dr. M. Djamil Padang with chief complaints of a slowly growing mass on her tongue and a history of repeated episodes of oral bleeding since a year ago. A radiological evaluation found a suspected lung metastasis. The patient underwent frozen section surgery. Gross observation of the specimen showed a piece of solid, white-reddish mass sized 1x1x1cm. The mass imprint's cytology showed a cluster of oval to spindle pleomorphic cells with round nuclei. Frozen section specimen histology revealed a nodule of tumor composed of a proliferation of round to oval pleomorphic cells with clear to eosinophilic cytoplasm and with eosinophilic granules divided by fibrocollagen septae suspicious of ASPS. Myogenin, MyoD1, cytokeratin, and S100 were negative. TFE3 was unavailable. PAS was positive.

Discussion and conclusion: ASPS histogenesis has been attributed to neuronal, neuroendocrine, or myogenic origins. The tumor has a proliferation of large polyhedral or polygonal cells with abundant eosinophilic and granular cytoplasm, divided by delicate vascular channels and bands of connective tissue that give the tumor an organoid pseudo-alveolar pattern. The sarcoma has ASPL-TFE3 fusion or t(X;17). TFE3 nuclear expression has diagnostic value. The clinical course was slow. A delayed diagnosis might lead to metastases.

Keywords: alveolar soft part sarcoma, lung metastasis

CHORDOMA OF THE SACRUM

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Background: Sacral chordoma is a rare malignant tumor of the sacrum which rarely occurs, with an incidence of 0.08/100.000 and the 5-year overall age-adjusted relative survival is 72% in the United States. There are no exact incidence data in Indonesia.

Case description: A 55-year-old male came with pain lump in his buttock. On physical examination, there was a palpable mass on the sacrum. Anterior posterior / lateral pelvic x-ray examination showed ground glass opacity in the pelvic cavity accompanied by destruction of 3rd until 5th sacral bones, suspicious for malignancy. A open biopsy was performed microscopic examination revealed proliferation of neoplastic cells (physaliphorus cells) forming a lobular pattern. These cells have round oval morphology, with vacuolated cytoplasm, round-oval, hyperchromatic and pleomorphic nuclei. Mitosis can be found. These cells are embedded in a myxoid matrix. In conclusion, the histomorphology consistent with chordoma.

Discussion and Conclusions: Chordoma is a malignant tumour that usually arises in bones of the axial skeleton. Chordomas are chiefly located in the axial skeleton, involving bones from the base of the skull to the coccyx. It's present with pain and site-related neurological symptoms. On imaging chordoma is typically a lytic, destructive lesion arising in the midline. The tumor consists of physaliphorous cells and extracellular myxoid matrix. Based on clinical, radiological and histomorphological findings this case was concluded as Conventional Chordoma of the sacrum.

Keywords: Sacral chordoma, sacrum

LANGERHANS CELL HISTIOCYTOSIS IN A NEONATE: A RARE CASE REPORT

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Background: Langerhans cell histiocytosis (LCH) is most commonly occurs in pediatrics but rare in neonates. Incidence in neonates is about 1-2 per million. The clinical presentations of LCH vary widely with the most common sites of a visceral manifestation being the lungs, followed by the skin and the lymph nodes. Children usually have a more aggressive clinical course that requires systemic chemotherapy than adults.

Case Description: A 14-day-old full-term female infant presented with a lump of the inguinal and some rash of the buttocks and scalp. The baby was active with normal vital signs. Excisional biopsy of the left inguinal lesion was performed, and microscopically showed the lymph node tissue with epitheloid cells proliferation. The cells were medium in size, with scant pale eosinophilic cytoplasm, irregular and elongated nuclei with vesicular chromatin, nuclear grooves, and distinct nucleoli. In addition, there was a polymorphous inflammatory background comprising small mature lymphocytes, neutrophils, and numerous eosinophils. Immunohistochemical staining reveals, positive for CD1a and Ki67 label index of 50%. The final diagnosis of LCH was determined.

Discussion and Conclusion: The clinical presentation and outcome of LCH depend on the patient's age, number of lesions, and degree of organ dysfunction at initial diagnosis. LCH remains a diagnostic dilemma for the treating physician because it has many faces. Histopathological identification of LCH cells and positive immunohistochemical staining with CD1a, S100, and/or CD207 (Langerin) are necessary for a definitive diagnosis and play a key role in determining appropriate patient management.

Keywords: LCH; pediatric tumor; CD1a; lymph node

Castleman Disease Orbita: Kasus Jarang

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Latar Belakang: Castleman disease adalah penyakit limfoproliferatif pada folikel kelenjar getah bening yang dikenal dengan sebutan *angiofollicular lymph node hyperplasia*. Insidensi di dunia 15/1000.000, terjadi pada semua usia baik wanita dan laki laki. Ada dua tipe yaitu hyaline vascular dan plasma cell castleman disease. Insidensi rongga orbita sangat jarang, < 17 buah laporan kasus di dunia

Deskripsi kasus: laki-laki usia 61 tahun dengan keluhan mata kiri dan kanan terasa menonjol sejak 1 tahun, semakin mebesar, tidak disertai mata nyeri, mata merah, pandangan kabur, padangan ganda, tidak ada benjolan atau tumor di tempat lain. Hasil CT Scan menunjukkan massa ekstraconal pada orbita bilateral, curiga limfoma. Kemudian dibiopsi dengan hasil reaktif Hiperplasia a/r Palpebra superior ocular sinistra dan didiagnosis banding dengan Limfoma maligna low grade. Kemudian dipemeriksa IHC CD20, CD3, BCL2, BCL6, Cyclin D1, CD10, Ki67, menunjukkan hasil normal, disimpulkan lesi jinak. Pasien dilakukan reseksi massa tumor pada orbita kanan dan diperiksa histopatologi dan IHC CD21, CD23, CD138 dengan kesimpulan Castleman disease, hyalin vascular type a.r retrobulbar ocular dextra.

Diskusi dan Simpulan: Castleman disease pada orbita sangat jarang, didunia hanya tercatat hanya <17 kasus dengan tipe terbanyak yaitu hialin vascular type (>90%). Castleman pada orbita pada laki laki usia tua melibatkan orbita bilateral. Gejala klinis berupa adanya massa, proptosis, ptosis, hypertopia, multiple lymphadenopathy, organomegaly, polyneuropathy, and cytopenias. CT Scan dengan kontras menunjukkan massa memberikan penyengatan. Kasus ini dapat disimpulkan castleman disease orbita adalah kasus yang jarang terjadi dan tipe hyalin vascular variant sering terjadi. Diagnosis castleman disease pada orbita dapat menjadi pitfall dalam diagnosis sehari hari

Keywords/ Kata Kunci: Castleman disease ; Hialin vascular type ; IHC

ADULT INTRAOCULAR MEDULLOEPITHELIOMA: DIAGNOSTIC CHALLENGES IN RARE CASE

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Background: Intraocular Medulloepithelioma is a non-hereditary neoplasm arising from primitive medullary epithelium of ciliary body, retinal or nerve optic. This tumor occurs usually in childhood and only several adult cases had been reported. The rarity of this case could be a source of clinical error and making thus entity underestimated and misdiagnosed.

Case Description : A 31 years old male presented with ocular mass for 7 months. The head MSCT suggestive intraocular mass extent to the anterior. Histopathologic examination showed tumor in pseudoglandular, multilayer pseudorosette, reticular and solid pattern which infiltrated to the stroma. The cells were polymorphic, small in size with eosinophilic and vacuolated cytoplasm. Round, oval, and elongated nuclei with prominent nucleoli were present. Mitosis were quite brisk. Immunohistochemistry staining revealed positivity for cytokeratin, vimentin, S100, and HMB-45.

Discussion and Conclusion: Diagnosis of this tumor challenging related with the rarity and microscopic finding that resembling other tumor. Based on histopathological examination, this case was diagnosed as amelanotic melanoma with differential diagnosis of Adenocarcinoma and Medulloepithelioma. Medulloepithelioma is typically immunoreactive for vimentin and pancytokeratin with limited and conflicting result have been reported for GFAP, S100 and HMB45. The positivity result of all immunohistochemistry marker of this case led to the diagnosis of Medulloepithelioma. Medulloepithelioma in adult may arise from neoplastic transformation of hyperplastic ciliary epithelium, triggered by inflammation or trauma. Even though the case is very rare, Medulloepithelioma should be considered as one of differential diagnosis of intraocular tumour in adults.

Keywords : Medulloepithelioma, Intraocular, Adult

CONJUNCTIVAL STROMAL TUMOR : A CASE REPORT

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Background : Conjunctival stromal tumor (COST) is a benign stromal tumor in the bulbar conjunctiva. This case is rare and that is reported for the first time at dr. Wahidin Sudirohusodo General Hospital Makassar.

Case description : We report a 43-year-old woman who came to the eye clinic presented a lump with a reddish vascularized lesion of her right bulbar conjunctiva since one year ago, feels a slight discomfort and painless. Clinical examination of the right eye showed normal vision, the anterior segment was normal but on the temporal side was lump a 4.5x4x2mm. The clinical diagnosis was a conjunctival cyst of the right eye, then an extirpation biopsy of the cyst was performed.

Discussion and Conclusion : Conjunctival stromal tumor is a benign stromal lesion arising from the proliferation of bulbar conjunctival mesenchymal cells. The etiology is still unknown, but inflammatory factors or environmental stimuli can be considered to be the pathogenesis of this lesion. Clinically, the patient felt like a foreign body sensation, painless and no previous history of trauma as in this patient. Histopathological examination with Hematoxylin Eosin staining showed myxoid fibrovascular tissue, infiltrated by loosely arranged spindle cells. Some cells show pseudonuclear inclusions and multinucleated cells occasionally in a “floret-like” configuration. There is no mitotic activity, scattered aggregates of lymphocytes and histiocytes. Immunohistochemical staining for vimentin was positive, so it was concluded with a conjunctival stromal tumor.

Keywords : Conjunctival stromal tumor, floret-like, pseudonuclear inclusion.

PERITONEAL TUBERCULOSIS

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Background: Peritoneal tuberculosis is rare, occurs in 4% of patients with extrapulmonary tuberculosis. Clinically active peritoneal tuberculosis can occur through hematogenous spread from an active lung lesion, rupture of caseous abdominal lymph nodes infected with a node or reactivation of latent peritoneal foci. Direct spread can also occur from an initial focus in the bowel, fallopian tube or from an abscess attached to the peritoneal cavity.

Case description: We report a case of peritoneum of a 25-year-old man. Then histopathological examination of the operating tissue was carried out with the network number O/2399/21. Macroscopic examination received one piece of tissue originating from the peritoneum, grayish white in color, chewy consistency, with an uneven surface and smooth surface, tissue volume ± 2 cc. On lamellar cutting, a white mass is seen. Microscopic examination, tissue preparations from the peritoneum, showed a tumor mass consisting of adipose tissue and fibrous connective tissue. Epithelioid cells appear with round to oval shaped nuclei, a "Banana shape" picture appears with some small and some unclear. Multinucleated giant cells that are shaped like a horseshoe (Dietrich Langhans cells) and a mass of necrotic, fibrous connective tissue filled with mononuclear inflammatory cells (lymphocytes). Interstitial bleeding, dilated blood vessels and congestion are also seen. Ultrasound examination of the lower abdomen with the results "according to the picture of acute appendicitis" and radiological examination of the posterior anterior supine thorax with the results "Long active pulmonary tuberculosis and right hilar lymphadenopathy.

Discussion and Conclusions: Based on the results of macroscopic, microscopic and radiological examinations, it was diagnosed as Peritoneal Tuberculosis with ICD-10 Code K65.9 (Peritonitis, unspecified).

Keywords: Peritoneal tuberculosis; tuberculosis; Tuberculous peritonitis.

MUCOEPIDERMOID CARCINOMA OF SALIVARY GLAND

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Background. Mucoepidermoid carcinoma (MEC) is the most common malignant tumor of the salivary glands composed of mucinous, intermediate (clear cell) and squamoid tumour cells. Most cases occurring in parotid gland. MEC prevelant woman than man.

Case Description. We reported a case of a 29 years old woman with parotid mass, 3 x 2 x 1,8 cm in size, grayish yellow. Microscopically, structure cyst composed of cuboid epithelium with mucinpool. Proliferative cells pleomorphic, coarse chromatin, epsinophilic cytoplasm were seen. In some foci, the cluster squamoid with round nuclei, coarse chromatin, cytoplasm eosinophilic. Found cells with eccentrically located nuclei and clear cytoplasm. Stroma consist of fibrous connective tissue.

Discussion and Conclusion. Mucoepidermoid carcinoma is common malignancy of the salivary glands which composed of mucinous, intermediate and squamoid tumor cells. Based on macroscopic and microscopic findings, we diagnosed this case as Mucoepidermoid Carcinoma of Salivary Gland, High grade.

Keywords: Mucoepidermoid carcinoma, squamoid, mucin pool.

RETROPERITONEUM SMALL CELL NEUROENDOCRINE CARCINOMA GRADE 3 IN A 2 YEARS OLD CHILD: A CASE REPORT

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Background: Neuroendocrine tumours (NETs) are hormone-secreting neoplasms with a variety of clinical syndromes. Intra-abdominal NET is a rare tumour, and primary retroperitoneal NETs account for 0.16%-0.20% of all neoplasms in humans.

Case Description: This paper reported a case of a 2-year-old boy with an intra-abdominal tumour. On the MSCT abdominal scans, there was a solid lobulated mass with heterogeneous density in the retroperitoneum across the midline as equal to Th10-L3. The chest radiograph discovered bilateral pleural effusions and pneumonia. There was depletion in the electrolyte values of this patient. On microscopic examination it was observed that the tumour composed by neoplastic cells mostly form the trabecular structures, pseudorosettes, and a small part was in form of diffuse, infiltrative between connective tissue stroma. Morphologically the neoplastic cells were small in size, narrow eosinophilic cytoplasm, rounds to oval nuclei, tended to be monoton, it partially composed of moulding, irregular nuclear membranes, hyperchromatic and partially coarse chromatin with inconspicuous nuclei. Immunohistochemical examination showed CD 56 was positive, NSE was positive, chromogranin was positive, synapthophysin was positive, and Ki-67 positive in more than 60% of tumour cell nuclei.

Discussion and Conclusion: Despite of its relatively low incidence, NETs is included as a clinical challenge because of its varied clinical presentation and no effective initial imaging modality. Based on clinical examination, imaging, histopathology and immunohistochemistry results, it was concluded as small cell neuroendocrine carcinoma grade 3

Keywords: Neuroendocrine carcinoma, small cell, retroperitoneum, child

PRIMARY NEUROENDOCRINE TUMOR OF THE COLON MESENTERY

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Background: Neuroendocrine tumors (NETs) have been described in many organs, but are most common in the gastro-enteropancreatic (GEP-NET) and pulmonary tract (PNET). Primary neuroendocrine tumor of the mesentery is very rare. More than 90% of gastrointestinal neuroendocrine tumors are located in the appendix, small intestine and rectum. We present a case of very rare primary neuroendocrine tumor of the mesentery showing well differentiated neuroendocrine tumor character though large size

Case Description: A 52 years old woman was admitted at Dr. Mohammad Hoesin General Hospital, Palembang due to palpable abdominal mass. A MSCT scan whole abdomen revealed a tumor mass of 12,3x7,3 in the anterior midline of the abdomen pressing against the intestines. The mass encases a branch of the superior mesenteric artery. The paraaortic lymph nodes are enlarged and conglomerated. USG abdomen revealed hyperechoic mass in the abdominal cavity measuring 9.59 x 11.42 cm and a left intra-abdominal mass measuring 0.94 x 0.52. Histopathology found the tumor mass with insular structure, trabecular anastomosing, consisting of neoplastic cells with round-oval shape, tending to be uniform, salt and pepper chromatin. Abnormal mitoses found 5/2mm². Immunoreactive for synaptophysin; chromogranin, CD 56, and Ki67 was 7%.

Discussion and Conclusion: Based on the epidemiology, etiology, radiology, clinical, macroscopic, histopathological and immunohistochemical features, it was diagnosed as a neuroendocrine tumour grade II.

Keywords: Mesentery; neuroendocrine tumor (NET); Neoplasms

HYPERACUTE REJECTION ON KIDNEY TRANSPLANTATION

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Background: Chronic kidney disease (CKD) is increasing in Indonesia. Kidney transplantation (KTx) is the most effective treatment modality in end-stage CKD. However, one of the challenges in KTx is allograft rejection.

Case Description: A 51-years-old female was diagnosed having stage 5 of CKD. The patient underwent a KTx from a living donor by the Kidney Transplant Team of Dr. Sardjito Hospital. Ultrasound examination shortly after transplantation revealed parenchymal renal transplant oedema and slow-flow renal vein suspected micro thrombi. A post-KTx biopsy was performed with histopathological findings showed fibrin thrombi in the glomerular capillaries and peritubular venules, tubular infarction and necrosis, and neutrophil and lymphocyte infiltration in the glomeruli and interstitial tissue. The histopathological findings are consistent with hyperacute rejection. Life-saving nephrectomy was performed. Histopathological examination showed renal tissue with swollen cortex and medulla, extensive erythrocyte extravasation, dilated blood vessels, and lymphocyte and neutrophil infiltration. There were glomeruli with fibrin microthrombi. There were also tubules degeneration and infarction, some contained erythrocyte and hyaline casts. These histopathological findings were suitable for hyperacute rejection.

Discussion and Conclusions: Diagnosis of hyperacute rejection was established in collaboration among clinicians, radiologists, and pathologists in a multidisciplinary team. Transplant refusal greatly affects the quality of life of the recipient and donor. Recognition of risk factors, strict screening, and appropriate procedure for transplantation are very important to prevent hyperacute rejection in KTx.

Keywords: hyperacute rejection, transplant complication, life-saving nephrectomy

INTRAABDOMINAL MESENCHYMAL CHONDROSARCOMA – A RARE CASE REPORT

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Background: Mesenchymal chondrosarcoma (MSC) is a rare form of chondrosarcoma that most commonly involves soft tissue and intracranial site. MSC has the tendency for recurrences, and distant metastases. It's mostly found in females in their 2-3rd decade of life. The diagnosis of MSC can be very challenging, particularly in cases with intraabdominal involvement. Thus, establishing the diagnosis is important to provide prognostic data and choose the proper treatment.

Case Description: A 35-year-old woman complained of abdominal pain for 1,5 years which went progressively within the past 3 months. Physical examination showed unpalpable right flank abdominal mass. Abdominal CT scan demonstrated a solid inhomogeneous mass of 19,9x 14,8x17,6 cm with extensive calcification. Histopathological examination revealed lobulated tumor with the components of small round blue cells and islets of hyaline cartilage. Small round blue cells component consisted of small polymorphic cells that were arranged in solid pattern with scant cytoplasm, round-oval shaped, and hyperchromatic nuclei. Immunohistochemistry staining was conducted and showed positive expression for CD99 in small round blue cells and positive expression of S100 in cartilage components. Thus, it supports the diagnosis of MSC

Discussion and Conclusion: MSC should be established based on physical, radiological, and histopathological examinations. Morphologically, MSC can be difficult to be distinguished from other small round blue cell tumors. The existence of cartilage components is a great help for the diagnosis of MSC. Its` 5-year survival rate has ranged from 42% to 68% which should be aware to diagnose for suitable treatment.

Keywords: Mesenchymal chondrosarcoma, Intraabdomen

FOLLICULAR LYMPHOMA

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Background: Follicular lymphoma is most common indolent lymphoma with second highest incidence in non-Hodgkin's lymphomas

Description: We report a man, aged 68 years, came for treatment with a complaint a lump in left sub-mandibula. Macroscopic examination, it was onepiece surgical tissue originating from a mass in left sub-mandibula area, the cutting surface was nodules, grayish brown, chewy consistency, size 8 x 5 x 4 cm. On microscopic examination, lymphoid proliferation appears to form a dense nodule structure, varying in size and shape. There is a picture of a crack around the nodule. Proliferating lymphoid consists of atypical and relatively monotonous lymphoid cells, slightly larger than mature lymphocytes. Lymphoid cells are small to medium in size, with an angulated nucleus, elongated, bent, to split, coarse chromatin with pale cytoplasm (centrocyte). Centrocytes mixed with large cells with round or oval nuclei, vesicular chromatin, seen 1-3 peripheral nucleoli, with minimal cytoplasm (centroblasts). Centroblasts consist 6-10 cells per HPF in lymphoid follicles. FDC cells were also found. Atypical mitoses are found. The results of immunohistochemical examination in cases showed CD20 (+), CD3 (-), low Ki67 (<30%), BCL2 (+).

Discussion and Conclusion: Based on histopathology and immunohistochemical results, this case was diagnosed as non-Hodgkin's lymphoma. Follicular lymphoma impression, low grade (ICD-O 9690/3) (C03.1).

Keywords: follicular lymphoma, non-Hodgkin's lymphoma, indolent lymphoma

SPLENIC MARGINAL ZONE LYMPHOMA

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Background: Splenic marginal zone lymphoma (SMZL) is a low grade B cell neoplasm composed of small lymphocytes that originate from the splenic white pulp germinal centers. Splenic marginal zone lymphoma is a rare disorder, accounting for 20% of marginal zone lymphomas and less than 2% of lymphoid neoplasm. Diagnosis of Splenic marginal zone lymphoma, lymphoid marker immunohistochemical examination is needed.

Case Description: A 50-year-old woman who came with history of abdominal pain since 1 month ago, having konstipation, no nausea and vomiting, no difficulty in chewing and swallowing food. On physical examination, there is spleen enlargement (Sufner 4). On upper abdomen MRI scanning there is spleen enlargement with slightly enhanced solid mass, tend to be primary splenic tumor (lymphoma), multiple lymphadenopathy on paraaorta and perispleen, clinically diagnosed as splenomegaly suspecting lymphoma. Splenectomy was performed, spleen size 11x9.5x7cm, black brown coloured with nodular surface, partly dense and rubbery. On microscopic examination, tumor mass composed of relatively small to medium size, lymphoid cells, with round and oval nucleus, relatively monomorphic, hyperchromatic, coarse chromatin with prominent nucleolus, mitosis can be found, with clear cytoplasm, resembling monocytoïd cells. Morphological features suggest splenic marginal zone lymphoma (SMZL). Immunohistochemical examination showed CD20 positive with nodular pattern, Ki67 positive >30%, CD3 negative, CD5 negative, CD15 negative, CD30 negative and BCL2 negative.

Discussion And Conclusion: Diagnosis of Splenic marginal zone lymphoma requires examination of lymphoid markers immunohistochemistry. In this case, CD20, Ki67 positive and CD3, CD5, CD10, CD15, CD30, BCL2 was negative.

Keyword: marginal zone lymphoma, spleen, SMZL, CD20, Ki67.

NON HODGKIN LYMPHOMA OF THE HEART: REPORT OF A RARE CASE

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Background: Cardiac lymphomas are rare extranodal lymphomas involving the heart. This is a first case of cardiac involvement from non hodgkin lymphoma at dr.Wahidin Sudirohusodo Hospital Makassar.

Case Description: A 25-year-old man has been complaining of chest pain, palpitation and dyspnea for one month ago, with a suspected clinical diagnosis of right atrium myxoma. A Multislice Computerized Tomography showed the heart is enlarged, heterogeneous lesions with indistinct boundaries in the right atrium, visible fluid density in the pericardial cavity, aorta and other blood vessels within normal limits.

Discussion and Conclusion: Cardiac lymphoma, is a rare entity, accounting for 2% of primary cardiac tumors and 0.5% of extranodal lymphomas, it is more frequent in males, can occur at any age. Usually aggressive lymphoma, diffuse large B cell lymphoma is most common histology, involves more frequently the right side of the heart. Chest pain and rhythm alterations are also common presenting symptoms. A microscopic examination of the tumor consisted of round nuclear cells, minimal cytoplasm, the size of the nucleus was more than twice that of mature lymphocytes, some showed prominent nucleoli in the center, nucleus was relatively monotonous, there were no Reed Sterenberg cells, the cells were solidly arranged, diffusely scattered, growing infiltrative. Immunohistochemical examination showed positive staining of LCA and CD20, with negative staining of CD3. Based on histopathological and immunohistochemical examination, we concluded this case as Non hodgkin lymphoma, diffuse large B cell type of the heart.

Keywords: Non hodgkin lymphoma, Diffuse large B cell lymphoma, Heart.

FIBROBLASTIC MENINGIOMA

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Background: Meningiomas are benign, slow-growing groups of neoplasms originating from meningotheelial cells in the arachnoid layer. Meningioma fibroblastic (fibrous) is a variant of meningioma that belongs to the WHO grade I group, consisting of spindle cells that form parallel, storiform, and interlacing bundles in the matrix that are rich in collagen. According to the Central Brain Tumor Registry in The United States (CBTRUS), in 2004-2006 there were around 18,000 new cases of meningioma diagnosed each year. In Indonesia, Cipto Mangunkusumo Hospital in Jakarta reported that the number of meningioma patients in 2010-2012 was 130 people.

Case Description: A case reported from a 52-year-old woman with complaints of headache, fever up and down and nausea and vomiting. On macroscopic examination, some grayish-white tissue is found, the surface is uneven, the consistency is chewy, with a volume of 0.5 cc. On microscopic examination, fragmented tissue appears, without epithelial lining, consisting of tumor cells that form storiform images, with spindle-shaped cells, round and oval nuclei, fine chromatin and partly vesicular, eosinophilic cytoplasm. Stroma consists of fibrocollagen connective tissue, also appears to be mild as lymphocyte casing cells, interstitial bleeding and blood vessels dilated and congested

Discussion and Conclusions: Based on the results of macroscopic and microscopic examination, it can be concluded as fibroblastic meningioma.

Keywords: fibroblastic meningioma, storiform

EPENDYMAL (GLIOEPENDYMAL) CYST: CASE REPORT

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Background: A wide spectrum of nonneoplastic cystic lesions can occur in CNS. These include those with CNS origin and non CNS origin. Ependymal (glioependymal) cysts are benign CNS origin neuroepithelial lesions that infrequently detected, and represent less than 1% of intracranial cysts. They are little known by the neurosurgical community and current information on them is scarce, so there is no standardized treatment method.

Case description: A 62-year-old male came to hospital with complaints of seizures, right hemiparesis, loss of vision and headache. Head CT scan showed a well-defined cystic lesion, located intraaxial supratentorial, left parietotemporal lobe, without connection with subarachnoid space. Patient underwent craniotomy and cyst excision, followed by cystoperitoneal shunt. After treatments, patient became symptom free. Histopathological examination showed cyst wall lined by flat to cuboidal ependymal cells, resting on gliotic tissue. The conclusion was ependymal (glioependymal) cyst.

Discussion and conclusion : Ependymal (glioependymal) cysts are located cerebrum, either intraventricular or extraventricular and typically large. Mostly, they are found incidentally. However, they can cause symptoms, that associated with their location and size. On CT, they appear as smooth, well-circumscribed, non-enhancing lesions, with a central low density resembling CSF. Histopathology examination showed cyst wall covered with ependymal layers resting directly on gliotic tissue. The immunohistochemical studies showed positive for S100 and GFAP. The differential diagnosis are choroid plexus cyst, arachnoid cyst and endodermal cyst. There are different modalities of therapy. The prognosis was good and the recurrence rate after surgery was low.

Keywords : Ependymal cyst, glioependymal, histopathology

NODULAR BASAL CELL CARCINOMA

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Background: Basal Cell Carcinoma is the most common skin cancer with an increasing incidence in the elderly population and high levels of sun exposure.

Case Description: Reported a case of a man, aged 66 years with complaints of a tumor mass in the cheek. On macroscopic examination, the tissue came from the cheek with a volume of ± 0.4 cc after processing, chewy consistency, gray in color. Then it is labeled with PA code B/433/21. On microscopic examination, tissue originating from the cheek was covered with stratified squamous epithelium with round and oval nuclei, fine chromatin, and eosinophilic cytoplasm. In the sub-epithelium/dermis, there is a proliferation of basal cells arranged in solid or nodular clusters separated by fibromyxoid stroma with palisading cell margins, enlarged nuclei, round and oval shapes, hyperchromatic chromatin, eosinophilic cytoplasm. There is a gap between the tumor clusters and the stroma. The stroma consists of fibrous connective tissue, blood vessels are dilated and congested.

Discussion and Conclusions: Basal cell carcinoma is the most common malignancy of the skin. The ratio between men and women is estimated to be 1.5:1. Incidence in the younger age group. Based on the results of macroscopic and microscopic examination, the patient was diagnosed with nodular basal cell carcinoma with ICD-O code 8091/3

Keywords: basal cell carcinoma, nodular pattern

UNUSUAL LOCATION OF GIANT CHONDROID SYRINGOMA WITH ACTINOMYCES INFECTION PRESENTING AS A SOFT TISSUE TUMOR

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Background: Chondroid syringoma is a rare and benign skin appendageal tumor composed of mesenchymal and sweat gland components that usually occurs in the head and neck region. Most cases occur in adults older than 35 years and presents as a slow growing, painless, subcutaneous, or intracutaneous nodule up to 3.0 cm. Because of its rarity, the diagnosis is often difficult and leading to frequent misdiagnosis.

Case description: A 54 years-old woman was presented with painless and slow-growing mass on femoral region for over the years, measured 7 cm in diameter with ulceration. The clinical diagnosis of soft tissue tumor was made. Histopathological examination showed a wellcircumscribed proliferation of epithelial cells with foci of myxoid stroma. There were numerous nests of polygonal cells arranged in tubuloalveolar structures lined by two layers of cuboidal and basaloid epithelial cells. There were necrotic areas with infiltrating neutrophils and lymphocytes along with multiple cotton ball-like bacterial aggregates consistent with *Actinomyces* species infection.

Discussion and Conclusion: Chondroid syringoma may exhibit histologic variability and may be confused with other skin lesions. It may reach a large size and should be included in the differential diagnosis of slow-growing nodules in the skin or the subcutis. Immunohistochemistry generally not required for diagnosis. Total surgical excision is the treatment of choice followed by regular follow-up to look for local recurrence and any feature of malignancy. Antimicrobial therapy is required in case with bacterial infection. The case reported here is very rare due to its unusual location, the large size, and the concurrent *Actinomyces* infection.

Keywords: benign mixed tumor of skin, chondroid syringoma, *Actinomyces*

ASSOCIATION BETWEEN FOXP3 EXPRESSION TUMOR INFILTRATING LYMPHOCYTE (TIL) IN NASOPHARYNGEAL CARCINOMA WITH THE RESPONSE AFTER CHEMORADIATION

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Background: Nasopharyngeal carcinoma (NPC) is a carcinoma originating from the surface epithelium of the nasopharynx with a high incidence in Tiongkok and South East Asia. Currently, many research are developing on the tumor microenvironment that can be assessed by tumor infiltrating lymphocyte (TIL) which is associated with the treatment response in several tumors, including NPC. Foxp3 is known as a regulatory T cell (Treg) marker that plays a role in the immunoregulator environment of tumor cells and can be used as a prognostic factor. The relationship between Foxp3 expression and treatment response can be considered as one of the factors that influence the prognosis of NPC.

Objective: This study aims to determine the relationship between Foxp3 expression and treatment response of NPC.

Methods: An analytical study with a cross-sectional design on non-keratinizing NPC diagnosed at Anatomical Pathology Department of FKUI/RSCM during January 2018 until December 2020. Immunoexpression data were analyzed to determine its relationship with the treatment response of NPC.

Results: From 60 selected cases diagnosed with NPC, there were consisted of 40 male patients (66,7%) and 20 female patients (33,3%) with ratio 2:1. There was a significant difference in intratumoral Foxp3 expression with treatment response ($p=0.01$). There was no significant difference in peritumoral Foxp3 expression with treatment response ($p=0.114$).

Conclusion: Foxp3 expression had a statistically significant relationship with response therapy after chemoradiation.

Keywords: nasopharyngeal carcinoma, treatment response, Foxp3 expression

Disclaimer

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COLONIC LYMPHANGIOMA IN AN ADULT WOMAN: A RARE CASE

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Background: Lymphangioma is malformation of the lymphatic system, categorized as rare entity in visceral organ, particularly at colon. Lymphangioma which previously misdiagnosed as ovarian cyst were reviewed in this report.

Case Description: Woman 51 years old complained intermittent right lower abdominal pain and presented right abdominal mass for a year. Abdominal ultrasound by radiologist and gynecologist revealed a cyst mass measuring 6,2 cm x 6,5 cm and concluded as right ovarian cyst. Patient underwent cystectomy, and consulted durante operation to surgeon, because the mass was found at colon ascenden. Complete excision was performed and pathological examination has suggested to establish the diagnosis.

Discussion and Conclusion: Lymphangioma is benign neoplasm composed of cystic dilatation of lymphatic vessels lined by endothelial cells. Lymphangioma is rarely discovered in visceral organ, especially at colon. Right lower abdominal mass in woman adult is frequently considered gynecologic tumor as origin, particularly supported by imaging examination result. Pathological examination showed multiple dilated lymphatic vessels lined by flat endothelial cell with edematous stroma at the serosa of colon ascenden. Immunohistochemistry showed CD31 and CD34 positivity at cells lining the cyst wall. As conclusion, we report a rare case of lymphangioma of the colon which misdiagnosed as ovarian cyst. Microscopic finding and immunohistochemistry result are consistent with lymphangioma. Observation and routine follow up need to be considered, because lymphangioma have tendency to recur.

Keywords: lymphangioma, colon, ovarian cyst

REPARATIVE GIANT CELL GRANULOMA MIMICKING GIANT CELL TUMOR IN SINONASAL

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Background: Giant cell reparative granuloma (GCRG) is a rare non-neoplastic reactive inflammatory process and presents either as central giant cell granuloma (CGCG) if intraosseous or peripheral giant cell granuloma (PGCG) if extraosseous. These lesions are difficult to differentiate from other giant cell-rich lesions, such as Giant Cell Tumor (GCT) of the bone. Thus, ancillary test is needed to confirm the diagnosis.

Case Description: A 12 years old boy complained of epistaxis and nasal congestion a month before hospital admission. MRI result showed sinonasal mass that expand to paranasal sinuses. Histopathologic examination showed fragmented compact bone and sinonasal tissue with tumor that contains multinucleated giant cells osteoclastic type in the intervening of mononuclear cells and spindle shape fibroblasts. Hemorrhagic and necrotic areas were also observed. Morphology examination concludes the diagnosis of CGCG with GCT as differential diagnosis. Immunohistochemical examination showed positive expression of CD68 in multinucleated giant cells and negative expression of P63 in mononuclear cells. Therefore, diagnosis was confirmed as CGCG.

Discussion and Conclusion: CGCG has frequently been misdiagnosed as GCT which is considered as neoplasm. CGCG occurs more in children and affects craniofacial region while GCT occurs mainly in older and affects long tubular bones. GCT can undergo malignant transformation and have worse prognosis than CGCG. CD68 is expressed positively in multinucleated giant cells for both entities while P63 is positively expressed only in mononuclear cells of GCT. Histopathologic and immunohistochemistry examinations are essential to establish the proper diagnosis.

Keywords: Giant cell reparative granuloma, giant cell tumor, CD68, P63

HIGH GRADE SEROUS CARCINOMA NOS OF ENDOSERVIX AND ENDOMETRIUM

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Background: Endometrial carcinoma is a gynecological malignancy with an increasing incidence and the fourth leading cause of death due to gynecologic malignancies in women worldwide.

Case description: Reported that 62-year-old woman came for treatment to a hospital in Medan with vaginal bleeding for 2 months. Inspecto cervical, exophytic tissue bleeds easily, about 2 cm diameter. Macroscopic examination of endocervix, the tissue was fragmented, the volume 4 cc was reddish brown, fragile consistency, second tissue from endometrium was a mass measuring 2x1x0.5cm, grayish white in color, chewy consistency. Microscopic examination of tissue preparations from endocervix and endometrium showed the same picture, consisting of a tumor mass that formed complex branching papillae with a central fibrovascular core, lined with columnar epithelial cells with stratified and vesicular nuclei. In others, tumor cells form a solid mass, and in others they form a glandular, cribriform pattern. The solid mass consists of cuboidal to columnar epithelial cells with enlarged, vesicular nuclei, eosinophilic cytoplasm and slit-like spaces. Mitosis is easy to find, more than 12/10 lpb. Between the tumor cells, a necrotic mass and interstitial haemorrhages are seen. The blood vessels are partially congested.

Discussion and Conclusion: Based on the results of macroscopic and microscopic examination, the case was diagnosed as high grade serous carcinoma NOS, with ICD-O coding 8441/3, Topography morphology C54.1.

Keywords: Serous carcinoma, endometrial carcinoma, high grade

MIXED GERMINAL CELL TUMORS OF THE OVARY: A RARE CASE REPORT

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Background: Mixed germ cell tumors (mixed-GCT) represent 15-20% of all ovarian tumors, 3% of which are malignant. mixed-GCT is a rare and highly aggressive neoplasm. The annual incidence is 1/2000000 women in Europe. mixed-GCTs are tumors that have two or more types of germ cell components, primitive, or malignant, representing approximately 8% of malignant GCTs. The findings of mixed-GCT cases in Makassar city in the last 10 years only find in 3 cases.

Case Description: We report a case of ovarian mixed-GCT in a 22-year-old young woman with a chief complaint of abdominal pain. Ultrasound examination showed an adnexal tumor with signs of malignancy et causa suspected ovarian carcinoma and multiple hyperechoic nodules in the liver with suspected tumor metastases. Routine blood examination showed Hb 4.1 mg/dl, platelets 434000, leukocytes 27600 and plano test (+). Salpingo-oophorectomy and left ovarian cystectomy were performed. Histopathological examination showed a malignant component of germ cells containing choriocarcinoma, yolk sac tumor and mature teratoma. HCG immunohistochemical staining was positive. A cumulative evidence ovarian mixed GCT as the final histopathological diagnosis.

Discussion And Conclusion: Cases of mixed-GCT with a combination of choriocarcinoma, yolk sac tumors and mature teratomas are very rare conditions that we encounter. HCG immunohistochemical staining was positive suggested that one of the malignant components in this case was choriocarcinoma. Elevated levels of AFP and HCG are strong predictors of poor prognosis, apart from the characteristic histopathological features of each component.

Keywords: Mixed-GCT; Ovary; HCG

PRIMARY OVARIAN CARCINOID TUMOR

A Case Report and Review of Literature

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Background: Ovarian carcinoid tumor is a well-differentiated neuroendocrine tumour (NET) resembling those arising in the gastrointestinal tract. This uncommon neoplasm has uncertain behaviour of female genital organs.

Case Description: We herein report a case of primary ovarian carcinoid tumor in 74 y.o. woman with abdominal mass. The ultrasound revealed a 20 cm malignant ovarian cyst. The CA19-9 was 15.60 U/ml and CA125 was 44.49 U/ml.

The patient underwent a frozen section and histopathology examination. Grossly, the tumor was about 17 cm in diameter, lobulated, with cystic, solid and necrotic area. Histologically, it had a readily identifiable neuroendocrine growth pattern. The tumor cells were uniform and round to oval with centrally located nuclei and “salt-and-pepper” chromatin. They were mostly arranged in solid nests were punctuated by peripheral acini, and glandular or tubular like. The mitosis was 5/10 HPF. NSE pathways were positive in 60 percent of tumor cell cytoplasm. Chromogranin and synaptophysin were negative.

Discussion: Ovarian carcinoid tumor is an uncommon neoplasm. Majority of them occur in association with mature cystic teratoma, but a considerable number present in pure form. In this case, no other component of teratoma and other primary tumor in the other organ was found. The microscopic and NSE features was consistent with primary ovarian carcinoid tumor, insular type. Patient also has ventricle heart disease which often accompany the insular type. The prognosis is generally excellent.

Conclusion: Based on clinical data, histopathology and immunohistochemistry findings, this case was concluded as primary ovarian carcinoid tumor, insular type.

Keywords: *carcinoid tumor, insular type, ovary.*

MUCINOUS BORDERLINE TUMOR OF OVARY

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Introduction: Mucinous borderline tumour (MBT) is an architecturally complex non-invasive mucinous neoplasms with gastrointestinal-type differentiation and it is the second most common type of borderline tumour in Asia. It is about 10 – 20 % overall the epithelial ovarian cancer.

Case Description: A 20-year-old women was reported with complained of abdominal enlargement and underwent surgery for tuba and ovary. On macroscopic examination, the tumor consist of a yellowish-brown mass, chewy consistency and lumpy contour. Also shows a multiloculated cystic cavity filled with brownish liquid, also seen the solid part and the tuba. On the microscopic examination, the tissue showing multiple cyst which lined of columnar stratified epithelial degrees, forming crypt, tufting, and villous or slender filiform papillae. The epithelial patterns are round to oval, rough chromatin to hyperchromatin, the nucleoli prominent partially, less cytoplasm and eosinophilic, mitotic activity is present.

Discussion and Conclusions: Based on the results of macroscopic and microscopic examination, the case was diagnosed as Mucinous Borderline Tumor of Ovary.

Keywords: Mucinous, mucinous tumor, borderline tumor, ovary.

MIXED OVARIAN EPITHELIAL TUMOR: A CASE REPORT OF MUCINOUS CYSTADENOMA COEXISTENCE WITH BENIGN BRENNER TUMOR

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Background: Mixed epithelial tumor comprises less than 4% of all the ovarian neoplasm. The incidence of mucinous cystadenoma and benign Brenner tumor is about 1.3%. Diagnosis of this mixed epithelial tumor is challenging due to the examination of several sections from each tumor and the accurate definition of the histological epithelial types.

Case Description: A 61 years old, post-menopausal woman presented with progressive abdominopelvic discomfort for 1 year. The abdominopelvic MSCT is suggestive of right ovarian adenocarcinoma. The pathological gross evaluation identified a separate huge 27x25x9,2 cm, multilocular cystic mass filled with mucoid material, combined with a solid area. Histopathological examination showed medium-large sized cysts lined by tall columnar epithelium with basally located nuclei and apical mucin intracellular. In the solid area, we found nests of transitional cells with round, oval, and hyperchromatic nuclei in 20% of the area.

Discussion and Conclusion: Minor foci of another tumor other than the predominant one can be ignored, but when significant amounts (>10%) of several tumor types are present, the tumor is best classified as a mixed epithelial tumor. In our case, the tumor appeared as a multicystic mass lining with mucinous type epithelial combined with a nest of transitional cells in a 20% area. Thus, this diagnosis was made. The relationship between ovarian mucinous cystadenoma and Brenner tumor is well known, but there are few reported cases of the coexistence of these two types of ovarian tumors in the literature.

Keywords: Mucinous cystadenoma, benign Brenner tumor, mixed ovarian epithelial tumor

A DIAGNOSTIC CHALLENGE OF PRIMARY ENTERIC-TYPE ADENOCARCINOMA OF THE URINARY BLADDER

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Background: Primary enteric-type adenocarcinoma is an uncommon malignancy in the urinary bladder. It can be indistinguishable morphologically from secondary colorectal adenocarcinoma involving the bladder by metastasis or direct extension. In this case, it is crucial to obtain adequate clinical information and immunohistochemistry staining.

Case Description: A 70-year-old man was presenting with hematuria and dysuria. There were no digestive tract symptoms and history of urinary tract stones. Ultrasonographic showed a mass in the bladder wall and thickening in the right latero-superior area with irregular edges, size 5.86 x 4.84 x 3.92 cm from the urological scan. Microscopic from TURBT found intestinal-type glands with pseudostratified columnar cells, nuclear atypia, mitotic, and luminal necrosis. Immunohistochemically, the tumour cells expressed CK7-, CK20+ (strong, cytoplasmic membranous staining), CDX-2+ (strong, nuclear staining), and β -catenin+ (strong, cytoplasmic membranous staining). The pathological report revealed primary bladder adenocarcinoma, enteric type. Ten months later, the patient died.

Discussion and Conclusion: Primary enteric-type adenocarcinoma of the urinary bladder is histologically similar to colorectal adenocarcinoma. The tumour showed a classic enteric (colonic) morphology, but the possibility of urachal or colonic origin was clinically excluded. A panel marker comprised of CK7, CK20, CDX-2, and β -catenin has some value in distinguishing primary bladder adenocarcinoma and secondary colorectal adenocarcinoma. Primary bladder adenocarcinoma has a largely poor prognosis. In conclusion, diagnosing primary enteric-type adenocarcinoma of the urinary bladder is challenging.

Keywords: Primary enteric-type adenocarcinoma, urinary bladder, panel marker

CARDIAC MYXOMA

A Case Report

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Background : This case is interesting because it may mimic malignant neoplasia related to frequent embolism, systemic or obstructive symptoms. Different histological presentation of cardiac myxoma may hinder the diagnostic process. Ninety percent of cardiac myxoma are diagnosed in the fourth to seventh decade and is rarely found in children. Cardiac myxoma is usually diagnosed at routine examination (on echocardiogram) or at postmortem examination. This tumor is most commonly found in the left atrium.

Case description : A 56-year-old woman with a complaint of sometimes shortness of breath since the previous 10 days. The complaint is getting worse when walking long distance. She also complains of coughing with a little white phlegm, sore throat, body aches and nausea. An echocardiography examination found a mass in the left atrium suspected of left atrial myxoma. Macroscopically, an irregular tumor mass with white-grey, brownish colour and chewy consistency was obtained. Microscopic examination shows the tumor contains proliferation of spindle-shaped and stellate cells, with round oval nuclei, eosinophilic cytoplasm, fine to hyperchromatic chromatin. The cells form cords, nests, glandular and single cell structures between the myxoid stroma. Vasoformative ring, multinucleated giant cells, hemorrhage areas, erythrocytes, fibrin deposits and inflammatory cells are also observed.

Discussion and conclusion : Clinical features of cardiac myxoma are not specific so that it is necessary to make a diagnosis with the help of an echocardiography and histopathological findings. Patients are diagnosed with cardiac myxoma based on clinical, echocardiography and histopathological findings. The prognosis of this case was poor, the patient died about 1 month postoperatively.

Keywords : myxoma, cardiac, left atrium

ENTERIC ADENOCARCINOMA OF THE LUNG

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Background: Enteric adenocarcinoma of the lung is a primary pulmonary adenocarcinoma that resembles colorectal adenocarcinoma. Its exact incidence has not been properly documented, owing to the severely sparse number of cases.

Case Description: A 72 years-old man presented with history of recurrent shortness of breath for the last 6 months, which worsened since the past month. His medical history was positive for tuberculosis of the lung that was diagnosed and treated in 2021. X-ray imaging of the thorax showed pulmonary infiltrate on all lung fields of both lungs in addition to right-sided pleural effusion. Cytology result of effusion fluid was negative for malignant cells. CT-scan of the thorax revealed multiple nodules on both lungs ranging in size from 7 to 11 mm with rightsided pleural effusion. Transthoracic core needle biopsy was performed, in which 5 cores were retrieved. Microscopic examination showed groups of neoplastic cells resembling intestinaltype epithelium with round to oval nuclei, moderate pleomorphism, hyperchromatism and coarse chromatin, prominent nucleoli, forming tubular gland-like structures. Immunostaining for CK7 and CK20 were positive and CDX2 was negative.

Discussion and Conclusion: Here we report a case of adenocarcinoma with enteric features of the lung, which was diagnosed by core needle biopsy. The diagnosis requires positivity of at least one intestinal marker on immunostaining, and corresponds to enteric adenocarcinoma in pulmonary resection specimen.

Keywords: lung, pulmonary, adenocarcinoma, enteric

PLEUROPULMONARY BLASTOMA PRESENTING AS RECURRENT PNEUMOTHORAX

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Background: Pleuropulmonary blastoma (PPB) is a rare but highly aggressive pulmonary neoplasm in children. It usually presents as nonspecific respiratory symptoms and in some cases as recurrent pneumothorax. PPB is classified into type I (purely cystic), type II (cystic and solid), and type III (purely solid). Computed tomography (CT) is the preferred imaging modality to detect a mass or cystic lesion. Distinguishing each type is important because of the varying prognosis and treatment. The histopathological diagnosis of PPB is the aggregation of primitive mesenchymal cells.

Case Description: A 25 months-old male patient presented with recurrent pneumothorax. CT scans revealed giant bullae with a cystic component in the hemithorax. A right bullectomy surgical procedure was performed. The microscopic examination was consistent with PPB type I with the feature of progression. Histopathological findings showed multilocular cystic architecture and collections of primitive cells with the expansion of septa composed of sarcomatous cells. The immunohistochemistry stain suggested myogenic differentiation.

Discussion and Conclusion: The histologic features of PPB are primitive mesenchymal cells, which have a divergent differentiation toward skeletal muscle, cartilage, blastema, fibrosarcoma-like spindle cells, or neuroblasts. PPB type I may progress to type II within time. It is characterized by early overgrowth of septa by sarcomatous components and anaplasia cells. Interpreting the solid component is quite challenging because of the variable thickness of the interconnecting septa. The solid part of type II PPB should be forming solid-grossly visible nodules. Combining radiographic, histopathological, and clinical data should determine the diagnosis of PPB.

Keywords: Pleuropulmonary blastoma, PPB, bullae, pneumothorax

CLEAR CELL SARCOMA OF THE KIDNEY A CASE REPORT

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Background: Clear cell sarcoma of the kidney (CCSK) is a rare malignant tumor of the kidney which occurs in about 3% of pediatric kidney tumour.

Case description: a 2-year-old girl came with a history of bloody urine. A palpable mass in the right flank was identified. Abdominal CT scan showed a solid mass within the right kidney and diagnosed as Nephroblastoma. Nephrectomy specimen revealed a solid mass, 8.5x6x5.5 cm in size, and grayish white in color, confined in the kidney, well-demarcated, with slight irregular border. Microscopically, the tumor cells arranged in nests and cord patterns, separated by delicate branching vasculature. These cells had epithelioid to spindle morphology, with round-ovoid-plump spindle nuclei with fine chromatin, no nucleoli, and also chromatin clearing. Myxoid stroma gave appearance of clear cytoplasm to this tumor. Vassa invasion was negative. On immunohistochemical examination, the tumor cells were stained positive with Vimentin, Cyclin D1, and BCL2 staining, and negative with WT1, Desmin, CD34, and S100 staining. Ki67 and p53 were positive in 10% of tumor cells. The diagnosis was CCSK, classic pattern.

Discussion and Conclusions: CCSK is the second most common pediatric kidney tumor after nephroblastoma. Classic pattern of both tumors is quite distinctive, but due to morphological variability of their variants, immunohistochemical examination are needed to confirm the diagnosis. CCSK may metastasize to perirenal lymph nodes, bone, brain and unusual site. Based on morphology and immunohistochemistry, this case is a CCSK, classic pattern, COG stage I, with favourable prognosis.

Keywords: clear cell sarcoma of the kidney, pediatric kidney tumor, morphology, immunohistochemistry

PROSTATIC BASAL CELL CARCINOMA: A CASE REPORT

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Background: Prostatic basal cell carcinoma is a rare malignant neoplasm, comprising approximately 0.01% of all prostate cancer. It has a slow growth but could potentially cause metastasis and recurrence so high diagnostic accuracy is needed for the patient treatment.

Case description: A 69-year-old male presented to the hospital with chief complaint of urinary hesitancy for 6 years. He also complained dysuria and nocturia. Ultrasonography showed prostate enlargement with calcification component inside and high vascularization of intralesion with the size 10.2x3.92x9.86 cm. In 2018, the procedure of transurethral resection of the prostate was performed with the histopathological diagnosis of benign prostate hyperplasia. During prostatectomy in 2022, histological examination revealed prostatic basal cell carcinoma with immunohistochemistry examination of tumor cells showing positive result for HMWCK but negative result for SMA.

Discussion and Conclusion: Prostatic basal cell carcinoma has very indolent lesion, but could cause lethal condition and therefore requires accurate treatment. Radical prostatectomy therapy in this case shows that tumor is limited to prostate. Prostatic basal cell carcinoma often occurs in transitional zone and immunohistochemistry marker of basal cell (HMWCK, p63, CK5/6) is required to make a diagnosis. Early detection is necessary to identify malignant cells features like atypical cells, unequivocal invasion, perineural invasion, necrosis or extra prostatic expansion. Prostatic basal cell carcinoma is not specific at the clinical or radiological stages. The diagnostic of these tumors is based on histological examination and immunohistochemistry marker of basal cell.

Keywords: *Prostatic Basal Cell Carcinoma, Cancer, Prostate*

SEMINOMA OF THE TESTIS

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Background: Seminoma is one of malignancies of testis. The incidence rate is about 27-56% of all germ cell tumors in testis.

Case Description: We reported case of a man, T, 44 years-old. Patient was done orchidectomy. One piece of tissue from testis has received, grayish to brown, solid consistency. Weight is 400 g. Size are 16 x 12 x 11 cm. Microscopic examination consists of sheets tumor mass bordered by fibrous septa with rich lymphocytes. Tumor cells appear uniform, enlarged nucleus, round and oval to polygonal, coarse chromatin, protruding nuclei, eosinophilic cytoplasm. Atypical mitosis are easily found. Stroma consists of fibrous connective tissue with lymphocytes. Dilated and congested vasculature, and interstitial bleeding.

Discussion and Conclusion: Pure seminoma accounts approximately 50% of all germ cases, occurring on patients 40 years-old. Tumor is arranged in pattern bounded by fibrous septa with infiltration of lymphocytes. Nucleus is polygonal shape, and pale cytoplasm. In this case we found microscopic features according to literature, so that diagnosis is Seminoma of the testis, ICD-O 9061/3.

Keywords: Seminoma of the testis, Germ cell tumor, Polygonal cell.

PEDIATRIC RENAL SMALL SIZED B-CELL NON-HODGKIN LYMPHOMA

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Background: Primary renal lymphoma is a rare renal tumor in children. It is account approximately 0.7% of extranodal lymphoma. Renal lymphoma is difficult to differentiate from other renal tumors, particularly from those belonging to small round blue cell tumor group.

Case Description: A 2-year-old boy presented with an abdominal mass in the upper right quadrant of his abdomen for 6 months. An abdominal CT-scan revealed hepatosplenomegaly and bilateral nephromegaly, as well as multiple hypodense renal lesions. The ultrasound guided renal biopsy showed a sheeth of small round blue cells that suggesting as a blastemal component and a few of primitive tubules and glomeruli. Three differential diagnose was determined based on histomorphology, namely nephrogenic rest, renal lymphoma and rhabdomyosarcoma. Subsequently, the immunohistochemical examination was performed and the tumor showed positive expression of LCA, but were negative for WT1 and myogenin. Further immunohistochemical examination showed diffuse and strong membrane staining of CD20 and negativity of CD3. Final diagnosis of small sized B-cell non-Hodgkin lymphoma was determined.

Discussion & Conclusion: The most common manifestation of renal non-Hodgkin lymphoma is bilateral renal involvement, acute renal failure, anemia, hematuria, and musculoskeletal pain. Lymphomas fall into the differential diagnosis of small blue round cells tumors and it can be confused with other small round blue cells tumor like blastemal component of Wilm's tumor and rhabdomyosarcoma. Therefore, immunohistochemistry is needed to establish a precise diagnosis. In this reported case, further immunohistochemical examination is necessary to determine the subtype of B-cell lymphoma. However, the biopsy sample was limited and therefore rebiopsy was required.

Keywords: pediatric renal lymphoma, renal biopsy, immunohistochemistry

GRANULAR CELL TUMOUR OF THE BREAST: A RARE CASE REPORT

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Background: A granular cell tumour is a soft tissue neoplasm that originates in the nervous system and could arise at anybody site. Tumour located in the breast are rare, accounting for 515% of all cases. Although the cases are rare, granular cell tumour is an actual entity and frequently confused clinician and pathologist to distinguish with breast carcinoma.

Case Description: A 21 years old Asian female college student, complaining of a palpable mass in her left breast of six month's duration. A physical examination showed a mass around 1 cm firm and painless, without any discharge and alterations to her skin. The patient had no prior operations, pregnancies, and family history of breast tumour. Histopathological examination showed benign tumour, composed with compact nest of polygonal to spindleshaped cell, contained granular eosinophilic cytoplasm and uniform, round nuclei without pleomorphism or mitotic activity. Necrotic was not found. Immunohistochemical examination showed positive staining for S100, vimentin and negative for cytokeratin. Histochemical analysis showed Periodic Acid-Schiff positive in the granules.

Discussion and Conclusion: Despite the rarity, Granular cell tumour can occur in benign and malignant setting. Clinically and radiologically are often indistinguishable from malignancy. Pathologist should be considering this entity if examine cells with abundant granular cytoplasm. The malignant lesion should meet 3 criteria of spindling, necrosis, vesicular nuclei with large nucleoli, high N/C ratio, pleomorphism and increased mitotic activity. In our case none of these criteria are met, thus the tumour is considered to benign.

Keywords: Granular Cell Tumour, Breast, S100

BILATERAL BREAST CANCER WITH LEFT EYELID METASTASIS

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Background: Bilateral breast cancer is a rare entity with incidence of synchronous contralateral tumour being 2% of women with breast cancer. Synchronous bilateral breast cancer is defined as the diagnosis of breast cancer at the same time or up to 6 months.

Case Description: We report a rare case of synchronous bilateral breast cancer in a 51 years old female with complaint of lump in bilateral breast. Core biopsy on bilateral breast was performed and the result was invasive lobular carcinoma. Lobular carcinoma of the breast is known for its multicentricity and bilateral spread. The immunohistochemistry result was Luminal B Her2 negative. At the same time there was a lump in the left eye with histopathology result was metastasis carcinoma.

Discussion and Conclusion: Bilateral synchronous breast cancer is an uncommon finding in woman presenting breast lump. The cancer can be invasive or noninvasive. The incidence pattern of synchronous cancer is similar to that of unilateral disease. The risk factors associated with bilateral occurrence are : familial or hereditary breast cancer, young age at primary breast cancer diagnosis, lobular invasive carcinoma, multicentricity and radiation exposure.

Keywords: Bilateral breast cancer, invasive carcinoma, metastasis

LEIOMYOSARCOMA OF THE BREAST

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Background: Leiomyosarcoma of the breast are rare tumour. Stromal sarcomas of the breast constitute about less than 1% of all malignant tumours of the breast. Primary leiomyosarcoma of the breast comprises a rare type of stromal sarcoma of the breast, any sarcomatous appearing tumour of the breast should be thoroughly worked up to exclude metaplastic carcinoma or the stromal component of a malignant phyllodes tumour before the diagnosis is rendered. Metastases to distant sites have been reported in a few literature, although leiomyosarcoma does not metastasize to the lymph nodes.

Case Description: One case was reported by Al Ihsan Hospital in 2020. Case report of a women, 45 years of age, previously diagnosed as benign phyllodes tumour of the breast, then the tumour was recurred in 2020 at the scar of biopsy which was diagnosed as malignant phyllodes tumour with differential diagnose rhabdomyosarcoma and metaplastic carcinoma. The tumour was spread to lung, preauricular dextra, and digiti I manus sinistra. Then the specimen undergoes immunohistochemical examination CK, P40, P63, CD34, CD31, SMA, MyoD1 and CK 5/6 at Hasan Sadikin General Hospital

Discussion and Conclusion: The conclusion of histopathology and immunohistochemistry is leiomyosarcoma of the breast. The tumour metastasize to lung, preauricular dextra, and digiti I manus sinistra.

Keywords: Leiomyosarcoma, malignant phyllodes, breast.

AGGRESSIVE ANGIOMYXOMA OF FEMALE PELVIS AND PERINEUM: CASE SERIES AND LITERATURE REVIEW

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Background: Aggressive angiomyxoma is an extremely rare locally invasive mesenchymal tumor with a high risk of recurrence. Only about 350 cases have been reported in the scientific literature so far. Because of the rarity it is often clinically mistaken for more common entities, such as a Bartholin cyst, lipoma, or hernia.

Case Description: We present three cases of aggressive angiomyxoma with age of 30-40. The patients mainly presented slow growing mass in the pelvic and perineum. The microscopic appearance was paucicellular tumour composed of relatively small oval, spindle and stellate-shaped cells interspersed in abundant loose collagenous and myxomatous stroma which contained varying numbers of circular or slightly twisted blood vessels of varying calibre. Immunohistochemistry workup showed positive staining for SMA, Desmin, ER and PR; and negative staining for CD34 and S100.

Discussion and Conclusion: Aggressive Angiomyxoma is rare condition but it is important to consider in the differential diagnosis of a pelvic mass, given the locally aggressive nature of this tumor and propensity for recurrence.

Keyword: Angiomyxoma, vulva, soft tissue tumor, pelvic tumors.

EPSTEIN-BARR VIRUS-ASSOCIATED SMOOTH MUSCLE TUMOR: A CASE SERIES

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Background: Epstein-Barr Virus-associated smooth muscle tumor (EBV-SMT) is a tumor with smooth muscle differentiation that is caused by EBV infection in immunosuppressive individuals. It can occur in the central nervous system, liver, lung, spleen, gastrointestinal tract, dermis, and soft tissues of the extremities.

Cases Description: We reported 3 patients with EBV-SMT. Case #1, a 2-year-old female with AIDS, which presented with multiple nodules in the liver, pericholedocal, spleen, and soft tissues. Case #2, a 42-year-old male with AIDS, which presented with oropharyngeal mass. And case #3, a 34-year-old male with unknown immune status, which presented with soft tissue mass of the thigh and multiple gastric nodules. Histopathological findings showed tumor cells with round to oval, spindle-shaped nuclei, slightly pleomorphic, fine chromatin, some with nucleoli, and eosinophilic cytoplasm. Immunohistochemistry staining of the tumor cells were diffusely positive for SMA (smooth muscle actin). The pediatric patient tested positive for EBV by PCR, and both the adult cases stained positive for EBER-ISH, supporting the diagnosis of EBV-SMT.

Discussion and Conclusion: International Agency for Research on Cancer (IARC) has classified EBV infection as a risk factor that contribute in tumorigenesis. EBV plays a central role in the development of smooth muscle tumor in immunocompromised patients, especially those with CD4 counts <100 cells/ μ L. EBV-SMT manifests in about 1-5% of HIV patients. This case series aims to raise the awareness of pathologists of EBV-SMT entity in immunosuppressive patients when encountering neoplasm which stain diffusely positive for SMA.

Keywords: smooth muscle tumor, Epstein-Barr Virus-associated smooth muscle tumor, immunosuppressive patients

PSEUDOGOUT CLINICALLY AND RADIOLOGICALLY MIMICKING GOUT ARTHRITIS: A CASE REPORT

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Background: Approximately 30-50% of ³ 85 years old people suffer from pseudogout. Pseudogout is an arthritis caused by deposits of calcium pyrophosphate crystals, hence known as Calcium Pyrophosphate Deposition Disease (CPDD). This crystal deposition generally located in synovial and periarticular tissues, particularly in hyaline cartilage and fibrocartilage. The arthropathy in pseudogout, gout and rheumatoid arthritis have overlapping signs and symptoms both clinically and radiologically. Each has a distinct management approach. Thus, pathologists play an important role in ruling out these differential diagnosis.

Case Description: A 52-year-old woman presented with a painful lump on the right hand and forearm since 2 years ago. She also complained numbness and limited movement on her right hand. Her rheumatoid factor test is positive. Uric acid serum level is normal. The radiological examinations suggest gout and rheumatoid arthritis. Ultrasound-guided fine needle aspiration biopsy was performed and revealed amorphous masses (crystals), suggesting pseudogout with differential diagnosis of gout. Histopathological examination of right hand and lump biopsies showed the classic rhomboid-shaped crystal deposits in compact bone, cartilage and connective tissue with infiltration of lymphocytes, histiocytes, plasma cells and foreign-body-type multinucleated giant cells. Final diagnosis of pseudogout was established.

Discussion and Conclusion: Pseudogout often diagnosed as gout or rheumatoid arthritis because of their similar clinical and radiological features. However, a definitive diagnosis requires positive identification of rhomboid-shaped crystal deposits on synovial fluid analysis or histopathological examination. As a pathologist, it is important to consider pseudogout in arthritis cases. Clinicians, radiologists and pathologists need to collaborate in determining the diagnosis of pseudogout.

Keywords: Pseudogout, gout, CPDD, arthritis

ADAMANTINOMA OF THE TIBIA: A RARE CASE

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Background: Adamantinoma is a rare low-grade malignant bone tumor of uncertain histogenesis, which occurs commonly in the diaphysis and metaphysis of the tibia and accounts for approximately 0.4% of all primary malignant bone tumors. Its histopathology's feature shows biphasic patterns of epithelial cells and osteofibrous components. There are two types of adamantinoma: the classical and the differentiated type, which resembles osteofibrous dysplasia. Correlation between gross, radiographic, and microscopic features of the lesion is crucial to establish the definitive diagnosis of adamantinoma.

Case Description: A 53-year-old man complained of a lump on his right lower leg, which he has had since 40 years ago. The pain in the lump has been felt since 6 months ago. On physical examination, a fixed mass was found at the middle third of right lower leg. Radiological examination showed a lytic lesion in the diaphysis of the right tibia. From histopathological examination, the tumor was biphasic consisting of epithelial and mesenchymal components. The epithelial components were solidly arranged with the peripheral palisading and the stellate reticulum centrally. The mesenchymal components were monomorphous proliferation of fibroblasts between epithelial nests.

Discussion and Conclusion: Adamantinoma is relatively rare tumor that is difficult to differentiate from other bone tumors. Despite its rarity, it is essential to recognize this bone tumor since adequate treatment in early stages results in a better prognosis.

Keywords: Adamantinoma, tibia, biphasic patterns

EXTRAOSSEOUS MALIGNANT CHONDROBLASTOMA: A CASE REPORT

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Introduction: Chondroblastoma of extraskeletal origin is a rare entity and could have an aggressive or metastasis nature. It could develop in any age, with male more frequently than female. In children and young adolescent, it can occur between the age of 10 and 20 years old. We present a rare case of malignant chondroblastoma in 13 years old boy.

Case description: A 13 years old boy presented with a lump in right neck since 3 months ago. Physical examination revealed a palpable mass with the size of 5 x 4 x 3 cm. CT Scan showed semisolid mass with calcification in the right neck that partially eroded the right temporooccipital bone. Gross examination, we received a piece of tissue as much as 1 gram. Microscopic examination revealed tumor mass that composed of round, oval to polygonal cell with pleomorphic and hyperchromatic nuclei, stroma has chondromyxoid degeneration. There was osteoclast like giant cells, cell with bizzare nuclei and infiltration of tumor cells in duramater. Immunohistochemistry showed negative for myogenin, myoD1, S100 and osteocalcin but positive in Ki67 (>10/10HPF).

Discusion and conclusion: Chondroblastoma is a rare epiphyseal benign bone tumor, constituting <1% of bone tumors. The extraskeletal presentation is most unusual. The 3 keys diagnostic parameters are the presence of chondroblasts which are round or polygonal cells with well-defined cytoplasm and eccentric nucleus, osteoclast-like giant cells and chondromyxoid stroma surrounding neoplastic cells. All these findings were evident in our case. The final diagnosis is extraosseous malignant chondroblastoma of the right neck.

Keywords: extraosseous malignant chondroblastoma, extraskeletal, pediatric

THYROID LEIOMYOSARCOMA: A RARE CASE REPORT

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Background: Primary thyroid leiomyosarcoma is a very rare tumor. The incidence is less than 0.01% of all primary thyroid tumors. Thyroid leiomyosarcoma are tumours showing smooth muscle differentiation, originating from thyroid gland vascular smooth muscle.

Case Description: Female, 47 years old, with lump on the left neck since 1 year ago, getting bigger in the last 3 months, no shortness of breath, no history of previous surgery. Physical examination revealed a mass was 13x6 cm in size, solid, firm. Cytological features from fine needle aspiration biopsy (FNAB) showed cellular spindle cells with atypical, pleomorphic, hyperchromatic nuclei and several normal thyroid follicles among them, suggesting malignant thyroid tumor (Bethesda VI). Total thyroidectomy was performed, followed by histopathological examination. Microscopically showed proliferation of atypical, pleomorphic, hyperchromatic spindle cells with eosinophilic cytoplasm. The spindle cells arranged in fascicular and interlacing pattern. Several follicular thyroid are entrapped within this atypical spindle cells. Based on these finding, this case was diagnosed as anaplastic thyroid carcinoma. To confirm the diagnosis, immunohistochemical examination with cytokeratin, desmin and Ki-67 were performed and the result showed negative for cytokeratin, positive for desmin and Ki-67 was highly positive. Based on these results, a diagnosis of thyroid leiomyosarcoma was made.

Discussion and Conclusion: Differential diagnosis with other primary mesenchymal thyroid tumors should be considered in the cases with atypical spindle cells microscopic appearance. The diagnosis of thyroid leiomyosarcoma based on cytology and histopathology is difficult to establish, therefore immunohistochemical staining is required to establish the accurate final diagnosis.

Keywords: Thyroid, Leiomyosarcoma, Immunohistochemistry

INTRAHEPATIC CHOLANGIOCARCINOMA

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Background. *Intrahepatic cholangiocarcinoma* is a malignant intrahepatic epithelial neoplasm with biliary differentiation.

Case Description. We reported a case of a 58-year-old woman with complaint of abdominal bloating accompanied by pain on the right chest, then the woman underwent the left lateral *hepatectomy*. It was obtained the liver tissue macroscopic weight of 350 grams, 18 x 10 x 6 cm in size, the surface is bumpy, grayish white and solid spongy. Microscopically appearance of the solid mass is also found in the liver in the form of glands of various shapes and sizes, layered with cuboidal epithelium, round oval nucleus, partially pleomorphic, vesicular chromatin and eosinophil cytoplasm. The glands are partly disorganized, and some infiltrate between the fibrous stroma and hepatocyte cells. It was also found a *lymphovascular* invasion. The solid masses in the bile ducts also show the same pictures as solid masses in the liver.

Discussion and Conclusion. *Intrahepatic cholangiocarcinoma* is a malignant epithelial neoplasm with biliary differentiation. The histopathology of intrahepatic cholangiocarcinoma in most cases shows a ductal and tubular pattern with various lumen sizes, but a cord-like pattern with a slit-like lumen can also occurs. Both patterns display a varied and abundant fibrous stroma. Carcinoma cells are usually small or medium in size, cuboidal or columnar, and pleomorphic. Based on macroscopic and microscopic examination, this patient was diagnosed as intrahepatic cholangiocarcinoma.

Keywords: *Intrahepatic, cholangiocarcinoma, malignant.*

MASTOCYTOSIS COLITIS IN 54 YEAR OLD WOMAN; A RARE CASE REPORT

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Introduction: Mastocytosis is a rare disorder and occurs due to neoplastic clonal proliferation of mast cells that accumulate in one or more organ systems.

Case description: A 54-year-old woman came to the ER complaining of weakness and diarrhea for the last 2 months. Her stools were sometimes watery and also felt nauseous. On physical examination, the body temperature was sub-febrile 37.60C, tachycardia, increased bowel sounds, and tenderness in the pit of the stomach. Endoscopic examination was carried out, the picture was obtained; The transverse colon appears polyp with 3 mm in size, with a mosaic pattern of the mucosa. The mucosa of the ascending colon and caecum also shows mosaic pattern. A biopsy specimen was sent for histopathological examination. Morphological features show that colonic mucosal lesions from an endoscopic biopsy are associated with a significant increase in the number of eosinophils & mast cells, which can be differentially diagnosed with Mastocytosis colitis, Eosinophilic colitis, systemic mastocytosis with GI involvement.

Discussion and Conclusion: To exclude the differential diagnosis, immunohistochemical examination and clinical correlation were performed to confirm the diagnosis. On histopathological examination, the microscopic feature showed proliferation of mast cells in aggregate only in the colon, without any other systemic manifestations, an increase in the number of mast cells >20/HPF was found in the colonic mucosa. The staining of CD117 on cells in the superficial (1/3 top) of the lamina propria suspected of being a mastocyte, can support the diagnosis of mastocytosis colitis.

Keyword: Mastocytosis systemic, Mastocytosis colitis, Mast cell, Chronic diarrhea.

DUODENAL NEUROENDOCRINE TUMOR

Case Report

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Background : Neuroendocrine tumors are tumors with well-differentiated cells, the cell morphology and immunohistochemical outages are difficult to distinguish from normal gastrointestinal endocrine cells. Neuroendocrine tumors of the duodenum often occur in the first or second part of the duodenum, usually in the mucosa and submucosa. We report a case of duodenal neuroendocrine tumor which is a rare case.

Case description A 40 year old woman with a clinical diagnosis of pancreatic head tumor underwent laparotomy and pancreaticoduodenal tissue removal. The macroscopic examination reveal a 24 cm long duodenum and a gallbladder a 5 cm long bile duct. In the proximal part of the intestine there is a tumor mass measuring 6x3x3 cm, white-brown-yellowish colour and protruding on the mucosal surface. The duodenal microscopic appearances are mucosal glands consists of cells with a broad cytoplasm, round and small nuclei, in solid nest, aciner, rosette and trabecular pattern, some of which have penetrated the submucosa to the external muscularis layer. There is also psammoma body in the lumen of the gland. Immunohistochemical examination of Chromogranin A and Synaptophysin stained positive in the cytoplasm. It was concluded as a duodenal neuroendocrine tumor.

Discussion and Conclusions The incidence of neuroendocrine tumors in the small intestine is 1.2 cases per 100,000 population per year, usually developing at the age of 30 to 70 years. Tumors are not detected and found at autopsy because primary lesions are difficult to detect by radiological examination because they are usually small and embedded in the intestinal wall, unless there are signs of intestinal obstruction accompanied by abdominal pain and vomiting. Bowel obstruction occurs when the tumor invades the serous layer to the mesentery. In this case, a 40 year old patient with a tumor mass measuring 6 cm in diameter filled the intestinal lumen causing obstruction in the 1st part of the duodenum. The micropscopic appearance of monotonous tumor cells consistent with neuroendocrine tumors and the presence of psammoma body in the aciner lumen was more likely to be categorized as somatostatinoma. This conclusion was also supported by immunohistochemical examinations that showed positive results in Chromogranin A and Synaptophysin stains on tumor cells. However, the presence of psammoma bodies is not specific for somatostatin-secreting tumors because it can also be found in other types of neuroendocrine tumors of the intestine and pancreas.

Keywords : neuroendocrine tumor, somatostatinoma

GASTROINTESTINAL STROMAL TUMOR (GISTs) OF THE PROSTAT: A CASE REPORT

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Background : Gastrointestinal stromal tumors (GISTs) are the most common mesenchymal tumors of the GI Tract. This neoplasm arises from the intestinal cells of Cajal, which are the intestinal pacemaker cells in the gut. Approximately two-thirds of GISTs originate from stomach and one-fifth from small intestine, while a few occur in the rectum, colon, or esophagus. Extraintestinal GISTs (EGISTs) which originate in the prostate are exceptionally rare.

Case Description : In this case report, we describe a GIST of primary origin in the prostate gland of an 50year old male who presented with incomplete emptying of the bladder. On abdominal ultrasound, an enlarged prostate with partial multiple nodules with internal necrotic components. Histopathological examination shows sections show prostat tissue containing tumor growth consisting of proliferation of spindle-nucleated cells, mild pleomorphic, eosinophilic cytoplasm, infiltrating the stroma. . The results of immunohistochemical staining showed positive immunoreactivity for CD117 (c-kit), SMA and negative for PanCK, consistent with the diagnosis of GIST.

Discussion and Conclusion : The rarity and nonspecific clinical manifestation of prostatic EGISTs facilitate misdiagnosis. Diagnosis mainly depends on imaging examination, histopathological, and immunohistochemical features. Surgery is the main treatment method, and imatinib is indicated for irresectable and malignant EGISTs.

Key word: Gastrointestinal stromal tumors, Prostate, Immunohistochemical.

SOX10 IN DETERMINING ACINIC CELL CARCINOMA DIAGNOSIS

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Background: Acinic cell carcinoma (ACC) is a malignant salivary gland neoplasm with acinar features. The mean patient age is approximately 50 years, female to male ratio of 1.5:1. More than 90-95% of ACC occur in the parotid glands. The tumors typically present as slow growing, solitary, unfixed masses, but some are multinodular and/or fixed to skin. ACC can be misinterpreted because of its low grade histology, due to its benign appearance, encapsulated tumor, absence of necrosis and histologically similar to the normal parotid gland. SOX-10 is a protein transcription factor which has known to be crucial aid for understanding histogenesis of salivary gland tumors, positive for acinar or intercalated duct origins.

Case description: We reported a case of a 57 years old woman who came with a sub auricular mass. Radiological examination showed a heterogeneous solid mass at parotis dextra. Vries coupe result was a benign lesion, suggesting an oncocytoma clear cell variant. Histopathological examination from paraffin block found that the lesion was suggestively malignant, due to ACC. Immunohistochemistry examination was carried out. SOX-10 was diffusely positive, Ki- 67 positive about 10% of tumor cells.

Discussion and Conclusion: ACC can be misinterpreted, and the pathologist should be aware to report this entity. SOX-10 was highly and frequently expressed in tumors exhibiting similarities to acini and intercalated ducts, and not in tumors resembling striated and excretory ducts. The use of SOX-10 may increase the diagnostic accuracy of ACC, especially to differentiate with oncocytoma clear cell variant.

Keyword: Acinic cell carcinoma, SOX-10.

HISTOPLASMOSIS COLITIS IN HIV PATIENT A Case Report

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Background: Histoplasmosis is an opportunistic infection caused by the dimorphic fungus *Histoplasma capsulatum*. The spores enter the body through the respiratory tract. In patients with compromised patient such as HIV, they can multiply well and affect various organs such as the gastrointestinal tract, and often mimic inflammatory bowel disease or malignancy.

Case Description: We herein report a case of 49-year-old woman with HIV, who came with complaints of black bloody stools for about two months. On examination, there were weight loss of about 10 kg in the last two months, reactive anti-HIV, leukopenia, normochromic normocytic anemia, thrombocytopenia, transaminitis, increased hemostasis, and hypoalbuminemia. Thorax radiography revealed pneumonia and multiple nodular. Colonoscopy showed internal hemorrhoids, polyposis rectum and colitis. Histopathological examination of the colonic biopsied tissue showed non caseating granulomas, dense infiltration of neutrophilic and lymphoplasmacytic inflammatory cells and foci of liquefaction necrosis in the mucosa. Many macrophages containing small, round, oval parasites with clear areas around and eccentric nuclei notified in the lamina propria. Positive PAS staining in these organisms confirmed *Histoplasma capsulatum*.

Discussion: Histoplasmosis often causes gastrointestinal infections in immunocompromised patients as well as in HIV patients. Inflammatory response due to inhalation of the spores, activated macrophages and induced granuloma formation. Patients often do not feel specific complaints, unless the infection has damaged organs and caused weight loss, so this is often confused with IBD or malignancies.

Conclusion: Based on clinical data, laboratory, radiology and histopathological examination, this case was concluded as histoplasmosis colitis.

Key words: Histoplasmosis, colitis, granuloma, immunocompromised, HIV.

INVERTED SINONASAL PAPILLOMA

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Background: Inverted papilloma is a rare sinonasal tumor that mainly occurs in adults during the 5th decade. Three characteristics make this tumor very different from other sinonasal tumors: a relatively strong potential for local destruction, high rate of recurrence, and a risk of carcinomatous evolution. Etiology remains little understood, but an association with human papilloma virus has been reported in up to 40% of cases, raising the suspicions of implication in the pathogenesis of inverted papilloma.

Case Description: A case was reported from a 55-year-old man. In the histopathological picture, it appears that the mass lined of the achantosis squamous epithelium with a growth pattern towards the stroma, the morphology of the nucleus within normal limits. partly with clear cytoplasm with nucleous located in the middle (koilocyte-like cells). At other foci appear transmigrating intraepithelial eosinophilic. The stroma hypocellular oedematous consists of fibrous connective tissue, infiltrated inflammatory cells of lymphocytes. Blood vessels dilatation and congestion.

Discussion and Conclusion: Based on the results of clinical examination, macroscopic and microscopic, concluded as sinonasal papilloma inverted type Coded with ICD-O 8121/1.

Keywords: inverted Schneiderian papilloma, inverting papilloma, endophytic papilloma

MALIGNANT SOLITARY FIBROUS TUMOR OF THE NASAL CAVITY

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Background: Solitary fibrous tumors (SFTs) involving the nasal cavity are extremely rare with few cases reported in the literature. SFT can exhibit a wide spectrum of histological features. The final diagnosis of SFT is challenging because there is much variability concerning its cellular, vascular components, and it can mimic other soft tissue neoplasms.

Case Description: We present a case of SFT in a 47 year-old woman complaining of a nasal congestion and epistaxis. She underwent 6 courses of chemotherapy in 2014 and 30 courses of radiotherapy in 2015. Nasal endoscopy and imaging exams revealed a mass occupying the right masticator space, destroying the nasal septum. Biopsy specimen examination reported sarcoma with epithelioid morphologic feature. Immuno-histochemical analyses confirmed the diagnosis of SFT.

Discussion and Conclusion: Clinical and imaging features of SFTs of nasal cavity are not specific. A broad of differential diagnosis is associated with histopathologic features of SFTs. SFTs of nasal cavity are very rare neoplasms which continue to pose challenges to practitioner. Pathological examination and mainly immunohistochemical studies are important to establish the diagnosis.

Keywords: Solitary fibrous tumor, nasal cavity, immuno-histochemistry

MALIGNANT MELANOMA OF NASAL CAVITY: A RARE CASE REPORT

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Background: Malignant melanomas are neural crest-derived neoplasms that originate from melanocytes and display melanocytic differentiation. Sinonasal mucosal melanoma is a rare tumour, representing 1% of all melanomas and about 4% of all sinonasal neoplasms.

Case Description: A 37-year-old male with nasal obstruction, epistaxis, and difficulty breathing. Bone window CT scan of the paranasal sinus revealed a dense soft tissue mass with an identified size of 1.9x4,3x3.1 cm, filling and obliterating the anterior side of the right nasal cavity and thinning the medioanterior wall of the right maxillary sinus, nasal septum deviation to the right. The patient underwent endoscopic tumor debulking surgery.

Discussion and Conclusion: A diagnosis of malignant melanoma of the nasal cavity was made based on histopathological and immunohistochemical examination. From the microscopic feature, it shows the proliferation of melanocyte cells that are scattered and densely packed, some of which form nests. Tumor cells with large nuclei, pleomorphic, vesicular, coarse chromatin, and macronucleoli. Atypical mitoses are frequent. Most of these cells contain intracytoplasmic melanin pigment. The conclusion obtained from immunohistochemical staining with HMB45 is appropriate for malignant melanoma, expressed in the cytoplasm of tumor cells. In this case, the incidence of mucosal melanoma at a young age is very rare and has a worse prognosis.

Keywords: malignant melanoma, nasal cavity, melanin pigment, HMB45 immunohistochemical

PERINEURIOMA

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Background: Perineurioma is a rare benign peripheral nerve sheath tumor originating from perineural cells and can be classified into intraneural and extraneural perineurioma. They most commonly present as mononeuropathy with gradual onset and slow progression, producing progressive neurologic deficits such as hypoesthesia or motor weakness. Therapy varies. The epidemiology of perineurioma depends on its location. Soft tissue perineurioma occurs in adults and is more common in women. Intraneural perineurioma is found in young adults and adolescents without a sex predilection.

Case description: A case of perineuroma was reported, a 56 year old man with the main complaint appears a lump on the forehead. On macroscopic examination, the tissue came from a frontal tumor, 3x3 cm in size, mobile, solid, gray in color, uneven surface, dense spongy consistency. On microscopic examination, tissue preparations originating from the frontal region, appeared to be a tumor mass consisting of proliferation of fibrous connective tissue and peripheral nerve tissue. Tumor cells with oval to spindle-shaped nuclei, pointed nuclear ends, nerve cells with curved nuclear ends, fine chromatin evenly distributed, cytoplasm not clear. Cells with atypia nuclei and multinucleated giant cells. In some places found myxoid degeneration, collagenous and cells with a lipomatous appearance. Blood vessels are dilated and congested as well as perivascular whorls.

Discussion and conclusion: Based on the results of macroscopic and histopathological examination, this case was diagnosed as perineurioma with ICD-O code 9571/0.

Keyword: Perineurioma, myxoid degeneration, perivascular whorli

PILOCYTIC ASTROCYTOMA

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Background: Pilocytic astrocytoma is an astrocytic neoplasm with variable proportions, dense and loose areas or myxoid Rosenthal fibers, & eosinophilic granular bodies. Most often occurs in the cerebellum, especially in children (CNS WHO grade 1). There are 3 histologic patterns of Pilocytic Astrocytoma (PCA): (1) biphasic pattern, (2) compact piloid pattern, with abundant Rosenthal fibers; and (3) a more diffuse pattern, rich in oligodendrocyte-like cells. Pilocytic astrocytoma (PCA) grows slowly and rarely spreads to surrounding tissues. It can be completely cured by surgery.

Case description: We report a case of a woman, 47 years old. The surgical tissue was received from the parietooccipital, measuring 0.6 x 0.5 cm, yellowish gray in color, chewy consistency. Histopathological examination was performed, the tissue preparations originating from the parietooccipitalis consisted of a tumor mass that formed a solid structure and partly microcystic (biphasic). Tumor cells with round-oval nuclei, fine chromatin, eosinophilic cytoplasm. In other foci, eosinophilic granular bodies, Rosenthal fibers, and multinucleated cells (pennies on a plate) are seen. Stroma against a background of fibrillary matrix fibers. There were blood vessels with glomeruloid appearance and some were hyalinized. Interstitial hemorrhage was also found.

Discussion and Conclusions: Based on the results of macroscopic and microscopic examinations in this case, the diagnosis was Pilocytic Astrocytoma. With ICD/O 9421/1. Topography: C71.3

Keywords: Pilocytic astrocytoma, Bipolar, Rosenthal fibers.

PARAPSORIASIS EN PLAQUE IN CHILDHOOD : REPORT OF A RARE CASE

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Background: Parapsoriasis en plaque is a precursor lesion that may potentially progress through mycosis fungoides, a variant of the CTCL. Some authors consider this entity as a very early-stage mycosis fungoides spectrum due to its significant resemblance. The incidence of parapsoriasis en plaque is highest in middle age, and very rare in childhood.

Case Description: We describe the case of an 8-year-old girl who presented with white, reddish scaly patches accompanied by mild itching since 1 year ago. Areas of predilection are at the face, bilateral superoinferior extremities, and anteroposterior trunk regions. The efflorescences of the lesions are hypopigmented patches, erythematous plaques with few scales on top. Histopathological examination showed acanthotic hyperplasia with a psoriasiform hyperplasia pattern. Several foci of lymphocyte cell epidermotropism were also found without a spongiotic reaction. Infiltration of lymphocyte cells was also seen in the dermis layer, especially in the perivascular areas, but no dermal blood vessel dilation was found. The results of immunohistochemical staining of CD3+ positive and CD20+ negative concluded the immune cells infiltrating the skin lesions were T lymphocytes.

Discussion and Conclusion: Parapsoriasis en plaque is a cutaneous T-cell lymphoproliferative disease belongs to SALT (Skin-associated Lymphoid Tissue). Mycosis fungoides is a SALT T-cell neoplasm, so it correlates with the pathogenesis of parapsoriasis. CD20+ negative confirmed that population of cutaneous lymphocytes are not B-cell origin. Based on histopathological and immunohistochemical findings correlate with the morphology of skin lesions, we conclude this case as parapsoriasis en plaque.

Keywords: Parapsoriasis en Plaque, Skin-Associated Lymphoid Tissue, Mycosis Fungoides

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Background: Schwannoma is a rare benign soft tissue tumor that arises from the peripheral sheath of nerves. The cellular schwannoma variant is defined as a hypercellular schwannoma composed exclusively or predominantly of Antoni A tissue and devoid of well formed verocay bodies.

Case Description: A case is reported, a woman, N, aged 13 years. The patient has been examined. Received one piece of tissue originating from the spine, grayish brown, chewy consistency. The largest tissue size is 3.5 x 3 x 2 cm. the smallest tissue size is 2 x 1.5 x 1.2 cm. Microscopic examination showed a dominant hypercellular area (Antoni A) and a hypocellular area (Antoni B). In the hypercellular area, there is a proliferation of Schwann cells which are densely arranged and in the form of fascicles. Cells with oval to spindle-shaped nuclei, fine chromatin evenly distributed, cells with atypia nuclei were also seen. In some places found cells that are neatly arranged. Blood vessels are dilated and congested.

Discussion and Conclusion: Schwannomas account for about 89% of all cases of nerve sheath tumors. Occurs on average in patients aged 50-60 years. These tumors are arranged in two architectural patterns with different proportions. Namely Antoni A, which is a dominant hypercellular (solid) area with enlarged nuclei and atypia, and Antoni B, which is a hypocellular (loose) area. In this case, we found a microscopic picture in accordance with the literature, so that the diagnosis of Cellular schwannoma, ICD-O 9560/0 was established.

Keywords: Cellular schwannoma, Antoni A, Antoni B, Nuclear atypia.

POORLY DIFFERENTIATED NEUROBLASTOMA WITH UNFAVORABLE HISTOLOGY: A RARE CASE IN AN ADULT WOMAN

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Background: Neuroblastoma is the third most common malignancy in children, with annual incidence of 0.3-5.5 / 100,000. The incidence of neuroblastoma in adult is very rare, especially in retroperitoneal with 1/10 million cases.

Case description: A 24-year-old woman was admitted with left back pain, accompanied by significant weight loss over five months. Abdominal MRI showed solid and cystic mass on left adrenal, measuring 14x10x13 cm. Macroscopically, tumour was encapsulated measuring 17x10x8 cm with white-grey colour, some cystic degeneration and necrosis. Microscopically, tumor was solid and separated by fibrovascular septa. The neoplastic cells have scant eosinophilic cytoplasm, spherical morphology, monotonous, with salt and pepper chromatin, and inconspicuous nucleoli, some forming Homer Wright rosette with recognizable neurophil in the centre. Mitotic count is 12/10 HPF. Immunohistochemical examination showed NSE and CD56 diffusely positive, Synaptophysin weakly positive, S100 positive in schwannian stroma, CD 99, TdT, FLI-1, Desmin, MyoD1, LCA, Pax5, CD3 and CD 20 were all negative.

Discussion and Conclusion: Neuroblastoma is a malignant neoplasm derived from primitive neural crest cells frequently located in adrenal medulla, followed by abdominal cavity. The most common subtype is poorly differentiated. The neoplastic cells usually stained positive for neural marker, S100 positive in schwannian stroma and negative for CD 99, FLI-1, Desmin, MyoD1, LCA, TdT, Pax5, CD3 and CD20, which exclude another small round blue cell tumor.

Prognostic factors for these patients include age, stage, histological subtype, and genetics.

Keywords: Neuroblastoma, adult, adrenal, retroperitoneal

THE ROLE OF IMMUNOHISTOCHEMISTRY TO DETERMINE THE ORIGIN OF CARCINOMA OF UNKNOWN PRIMARY ORIGIN

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Background/ Latar Belakang: Cancer of Unknown Primary (CUP) refers to histologically proven cancer where no primary lesion has been detected although the initial diagnostic workup has been completed. Immunohistochemistry (IHC) should be applied to identify the tissue of origin.

Case Description/ Deskripsi kasus: We report a case of CUP in a 52-year-old man with abdominal discomfort since 2 months ago. CT scan examination conclude an epigastrium tumor suspect gastrointestinal stromal tumor (GIST) and no mass found in gastrointestinal tractus, liver, gall bladder, spleen, kidney, vesica urinaria and prostate. Laparotomy procedure was performed and macroscopic examination from the excised tissue sized 24x22x6 cm with the cut surface is brownish white. Histopathologic examination suggested a GIST. Immunohistochemistry staining for DOG1 and CD117 were negative, further IHC staining CK7, CDX2, HepPar1 was negative and CK19, CD10 were positive.

Discussion and Conclusion/Diskusi dan Simpulan: Microscopic examination of tumor showed the proliferation of epithelioid cells with round-oval nuclei, vesicular, prominent nucleoli, clear and eosinophilic cytoplasm. There were also high pleomorphic tumor cells with bizzare nuclei and giant cell tumors. These cells arranged in sheets, nests and papillary structure. Histopathologic examination suggestive for GIST unfortunately the IHC profiles were not support. Advanced IHC panel confirmed the hepatocellular carcinoma origin tumor. Immunohistochemistry is highly required for tumor with unclear location and morphology.

Keywords/Kata Kunci: Cancer of Unknown Primary, Immunohistochemistry, gastrointestinal stromal tumor, Hepatocellular carcinoma

Gonadoblastoma in Turner syndrome : a case report

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Background: Turner syndrome (TS) with presence of Y chromosome material increase risk to development of gonadoblastoma. Gonadoblastoma is germ cell tumor arranged in nest with incompletely differentiation of sex cord. Case report will elaborate clinical, histopathological and immunohistochemistry profile related to gonadoblastoma in TS.

Case Description: A 16 years old female presented TS, with classical 45X karyotyping, had primary amenorrhea, uterus hypoplasia and bilateral ovarian cyst. Microscopically of ovary showed clusters of cell with round to spindle nuclei, moderate pleomorphism, coarse chromatin, clear cytoplasm dispersed in fibrous stroma without folliculogenesis. Left salping was rudimentary. Uterus showed endometrial stromal and glands dispersed in irregular muscle bundle as müllerian remnant. Immunohistochemistry profile from right ovary showed positivity to CD68, PLAP, Inhibin and negative reactivity to Pancytokeratin, Calretinin and CD 117.

Discussion and Conclusion: TS with classical 45X karyotyping has lower risk to progress gonadoblastoma, but the presence of Y chromosome material tends to be oncogenic material of gonadoblastoma development. Specimen presented gonadoblastoma, atretic ovarian failure, uterus hypoplasia and left salping hypoplasia due to gonad dysgenesis.

Gonadoblastoma originated from germ and stromal cell. Morphologically, germ cell are round large cell, amphophylic or clear cytoplasm, and prominent nuclei, immunoreactive with PLAP and CD 68, while stromal cells are smaller, with darker nuclei, immunoreactive with Inhibin. Pancytokeratin distinguished epithelial tumor, negativity of calretinin related to the absence of thecal and granulosa cell. Negativity of CD117 related abnormal germ cell.

Keywords : Turner syndrome, Gonadoblastoma, Mixed germ and stromal tumor.

CHURG-STRAUSS SYNDROME MIMICKING DEEP MYCOSIS

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Background: The Churg-Strauss syndrome is characterized by asthma, fever, eosinophilia, as well as symptoms of heart failure, kidney damage, and peripheral neuropathy resulting from a vascular compromise in different organs and systems. CSS usually manifests between 7 and 74 years of age. The estimated incidence is approximately 0.11 to 2.66 new cases per 1 million people per year. No gender predominance or ethnic predisposition has clearly been demonstrated in CSS.

Case Description: A 52-year-old woman presented with a lesion on both feet getting bigger. Pedis x-ray showed a of cellulitis with osteomyelitis pedis right and microbiology culture showed no growth of yeast. The entire superficial layer of the dermis to the deep dermis is swollen, hyperemic, necrotic, heavily spreading with inflammatory cells. The immunochemistry of CD68 showed positive result.

Discussion and conclusion: Churg-Strauss described as a necrotizing vasculitis of medium to small sized blood vessels associated with eosinophilic infiltration around the vessels and adjacent tissues. It is a rare but severe systemic vasculitis that can affect almost every organ in the body. A combination of high-dose corticosteroids and cyclophosphamide is still the gold standard for the treatment of severe cases.

Keywords: The Churg-Strauss syndrome, eosinophilic, vasculitis

HYDATID CYST OF THE SPINE: REPORT OF A RARE CASE

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Background: Hydatid cyst is caused by cystic stage of echinococcus tapeworm, of which *Echinococcus granulosus*. This is the first time encountered hydatid cyst in the spine at dr. Wahidin Sudirohusodo Hospital Makassar.

Case Description: A 48-year-old man has been complaining of weakness in both lower extremities since one month ago. Two months ago, the patient initially complained of low back pain, which later expanded to both lower legs. Microscopic examination of the tumor mass revealed a cyst with lamellar sclerotic connective tissue-lined walls and a cyst containing several helminthic structures.

Discussion and Conclusion: Hydatid cysts are cystic lesions caused by the infection of *E. granulosus* in humans who consume contaminated food or water containing the parasite eggs. Eggs ingested hatch in the small intestine and produce scolices that invade the intestinal mucosa and disseminate through the blood or lymphatic system. Hydatid cysts can be found in the liver and lungs, and rarely in the spine. Clinical signs are non-specific, and the disease progression is slow. The histopathological evaluation of cystic lesions is a definitive diagnostic to determine the treatment and prognosis in order to minimize complications and recurrence. Based on histopathological examination, we concluded this case as a hydatid cyst of the spine.

Keywords: Hydatid cyst, tapeworm, *Echinococcus granulosus*, spine.

OVARIAN FIBROSARCOMA

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Background: Ovarian fibrosarcoma is a malignant fibroblastic tumor of the ovary. with an average age of presentation of 49 years, sometimes associated comorbidities such as Mafucci syndrome, naevoid basal cell carcinoma syndrome. Less than 5% of reported cases are under the age of 10, including cases in an 8-year-old girl. With a poor prognosis due to aggressive neoplasms.

Case Description: We reported that a Reported a case of a woman, Mrs. NN 40thn Diagnosed with ovarian fibrosarcoma. Macroscopic examination of the tissue resulting from ooporectomy surgery, ovarian size 3x4x5, tumor size 20 x 13 x 4 cm.). At lamelarization cutting appears a grayish-white lobed mass, chewy consistency, size Ø 4.5 - 10 cm. Microscopically show proliferation ovarian mass shows a proliferation of spindle cells, most of which form fascicles arranged parallel to all directions, some are arranged whorly and some have a herringbone appearance, the nucleus is enlarged, oval to spindle shaped, with both pointed ends, rough chromatin and partly hyperchromatic, scanty cytoplasm and eosinophilic. Mitosis is found to be >20/10 HPF. There was necrosis >50%. Myxoid stroma with moderate influx of inflammatory cells lymphocytes Blood vessels are dilated and congested. Accompanied by interstitial bleeding.

Discussion and Conclusion: Based on the results of histopathological examination the ovaries are diagnosed as, ovarian fibrosarcoma, by ICDO Code 8810/3. Tophography C56.9.

Keywords: ovarian carcinoma, ovarian fibrosarcoma, sex-cord tumor.

SQUAMOUS CELL CARCINOMA ARISING IN A MATURE CYSTIC TERATOMA

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Background : Malignant transformation in a mature cystic teratoma of the ovary occurred in about 2% of mature cystic teratoma (MCT). Squamous cell carcinoma is the most common transformation. Such neoplastic transformations are extremely difficult either to predict or detect early. We describe a new case of squamous cell carcinoma arising in a mature cystic teratoma.

Case Description : A 50-year-old female patient is diagnosed with abdominal enlargement. An ultrasonograph scan revealed a cystic mass with solid component in right ovarian projection that measured 10,3x9,2x11 cm in size and ascites. Chest x-ray showed basal consolidation of the left lung and left pleural effusion which was suspected as a metastatic process. Salpingo-oophorectomy and omentectomy was performed and the result was malignant. Postoperatively, the histopathological features were teratoma with suspicious of a neuroectodermal component and malignant squamous component, so an immunohistochemical examination with cytokeratin and GFAP was performed. The final diagnosis was squamous cell carcinoma (SCC) of the ovary.

Discussion and Conclusion : Somatic malignant neoplasms arising from teratomas is a rare entity. The prognosis of the malignant transformation arising from MCT is highly dependent on surgical stage. The prognosis of advanced disease is worse than that of more common ovarian cancers. We review the existing literature to provide evidence on a rare pathology.

Keywords : Malignant transformation, mature cystic teratoma, ovary, squamous cell carcinoma

OVARIAN GYNANDROBLASTOMA : AN EXTREMELY RARE CASE OF OVARIAN SEX-CORD STROMAL TUMOR WITH MALE AND FEMALE ELEMENTS

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Background : Gynandroblastoma is an extremely rare sex cord-stromal tumor that manifests with a combination of two histological elements: granulosa cell (female elements) and SertoliLeydig cell (male elements) differentiation. It appears at any age, and its clinical can be either endocrinological, with cycle disorders or hirsutism, either pelvic mass syndrome. We report a case of gynandroblastoma in premenopausal woman presenting with menstrual cycle disorders.

Case Description : A 21-year-old nulliparous woman presented with prolong and irregular menstrual cycle for these past 1 year. No symptoms of abdominal mass. Pelvic computed tomography showed small multiple cystic and solid mass suspected from left ovarian origin. Salpingoophorectomy was performed and microscopic examination shows tubular, trabecular and solid pattern of both Sertoli-Leydig cell and adult granulosa cell differentiation, which is exhibiting immunoreactivity for inhibin, pancytokeratin AE1/3 and ER, also negativity for NSE and CK7, therefore establishing the diagnosis of ovarian gynandroblastoma.

Discussion and conclusion : Ovarian sex cord-stromal tumors (SCST) are rare, and malignant SCSTs compose about 8% of ovarian malignancies. Gynandroblastoma is a rare subtype of SCST with a combination of female and male sex cord differentiation. To our knowledge, 28 cases of gynandroblastoma have been described in the literature to date with the first case in the 1930s. Gynandroblastoma is known a malignant tumor, however its malignant potential is low. The prognosis of these tumors seems to be favourable, with no published postoperative recurrence of gynandroblastoma to date.

Keywords : Gynandroblastoma, sex-cord stromal tumor, rare ovarian tumor.

OVARIANFIBROMA

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Background: Ovarian fibroma is benign stromal tumor of ovary composed of fibroblastic cells within a variably collagenous stroma. It is accounting for 4% of all ovarian neoplasms while 10% ascites occur in large tumors.

Case Description: This case report of a woman 31 years old with mass in left ovary and ascites. Ca 125 serum was 36.6 u/mL. The left ovary, fallopian tube, omentum and ascites fluid were examined in Anatomic Pathology Laboratory M. Hoesin Hospital Palembang. Mass size were 12x11x6 centimeters, firm, chalky white and well circumscribed cut surfaces. Ascites fluid were 10 cc, reddish. Microscopic features were variably cellularity, composed of cells with bland, spindled to ovoid nuclei, scant eosinophilic cytoplasm blending with dense collagenous and edematous stroma. Ascites fluid consisted mesothelial cells, streaming stromal cells with bland spindled to ovoid nuclei and mucoid matrix. Immunoreactivities were positive for calretinin, CD56, and vimentin while negative for Estrogen Receptor, CD 10 and Ki67.

Discussion and Conclusion: Ovarian fibroma with ascites occurs in small proportion of cases associated with large mass (> 10 cm). The most frequently case arises in middle age (48 years) and occasionally with hormonal manifestation while Estrogen Receptor immunoreactivity was negative. Expression of vimentin, calretinin, CD 56 were positive while CD10 and Ki67 were negative, its diagnosed with ovarian fibroma.

Keywords: Ovarian fibroma, macroscopic, microscopic, immunohistochemistry

HIGH-GRADE ENDOMETRIAL STROMAL SARCOMA UTERUS

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Background: High-grade endometrial stromal sarcoma (HGESS) is an aggressive mesenchymal tumor, accounting for less than 1% of all uterine malignancies. Patients age between 14 - 71 years. HGESS has a poor prognosis.

Case Description: A 38-year-old woman presented with vaginal bleeding in the past 1 year before admitted to the hospital. She had 9 kilogram-weight loss for the last 6 months. The patient was diagnosed as missed abortion and performed curettage at the regional hospital. Histopathological examination concluded a HGESS. The patient was referred to Dr. Hasan Sadikin General Hospital Bandung for further treatment. Radiological examination was performed and the result indicating a malignancy in the endometrium and the presence of nodules in both lungs. The patient underwent a total hysterectomy. Additional immunohistochemical examination results from hysterectomy were positive CD10, PR and CyclinD1. Meanwhile, ER and SMA are negative.

Discussion and Conclusion: HGESS is an aggressive and rare stromal malignancy. Histopathological diagnosis through curettage can be performed. The histopathological examination results from hysterectomy showed that the tumor cells were round with eosinophilic cytoplasm, invaded the myometrium and lympho-vascular vessels. These results are in accordance with the histopathological examination of curettage tissue. Based on the 5th edition of WHO Female Genital Tumours, immunohistochemical examinations that can be performed to determine the type of HGESS based on immunophenotype are CD10, ER, PR, CyclinD1, BCOR, SMA, Desmin and Caldesmon.

Keywords: endometrial stromal, high-grade endometrial sarcoma, immunohistochemistry

OVARIAN CARCINOID ARISING IN MATURE CYSTIC TERATOMA: REPORT OF A RARE CASE

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Background: Carcinoid is a well-differentiated neuroendocrine tumor (NET) that uncommonly occurs in ovary, comprising 0,1% of all ovarian neoplasm. Ovarian carcinoids (OC) may arise as monodermal teratoma or as a component of other teratomas. They bear low malignant potential and generally have excellent prognosis. Given its rarity, the tumor might be mistaken for other malignant neoplasms that possess morphological similarities.

Case Description: We presented a case of primary OC arising from mature cystic teratoma in a 52-year-old female. The patient complained of abdominal distension and constipation within the past two years. Pelvic ultrasound showed left adnexal solid mass with cystic components. The patient afterwards underwent a total hysterectomy, bilateral salpingo-oophorectomy, pelvic lymphadenectomy and omentectomy. Intraoperative frozen section of left ovarian mass was performed and resulted a mature teratoma with malignant transformation. Morphologically the tumor consisted of mature cystic teratoma along with solid mass that grew mainly in trabecular pattern. Foci of insular pattern and thyroid tissue were also identified. Tumor cells nuclei were uniform with salt-and-pepper chromatin, mitosis was absent.

Discussion and Conclusion: Ovarian carcinoid is a well-differentiated NET resembling those arising in the gastrointestinal tract. Most patients are diagnosed at sixth decade of life with median age 53 years. Approximately one third of primary OC cases develop carcinoid syndrome. Only 15% of OC reportedly exists in pure form, with the remainder featuring teratomatous components such as struma ovarii or dermoid cysts. Microscopic appearance of OC is might be mistaken for other neoplasms: metastatic adenocarcinoma, low-grade endometrioid carcinoma, granulosa cell tumor or Sertoli-Leydig tumor. Ovarian carcinoid variably shows positivity for neuroendocrine markers and CDX2. The prognosis of OC is generally excellent with rare exceptions. Due to its limited number of case, improved awareness of this entity and recognition of OC's morphology are absolutely needed.

Keywords: ovarian carcinoid, NET, ovary

LUNG ADENOCARCINOMA DETECTED FROM MULTIPLE METASTATIC SITES: CHALLENGING DIAGNOSIS

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Background: Lung adenocarcinoma is most commonly detected in the advanced stage with metastasis and is more likely to be peripherally located in the lung. In some cases, surgery is not recommended. The presence of resectable tumor metastatic is a valuable specimen for tracking the primary tumor to determine the appropriate therapy.

Case Description: A 24-year-old non-smoker male presenting with blurred vision in the left eye, neck lymphadenopathy, and massive pericardial effusion. Physical and radiography examinations were suggestive for primary malignancy of the brain with pulmonary metastasis. Craniotomy was performed and the tumor resection showed a metastatic adenocarcinoma. Further investigation with FNAB of neck lymph node, cytology of pericardial effusion, and histopathology of the pericardial tumor revealed metastatic adenocarcinoma. A bronchoscopy examination didn't reveal the tumor. Immunohistochemical staining for TTF1 and EMA testing of brain tumor specimens suggestive for primary lung adenocarcinoma. Epidermal growth factor receptor mutations were not detected. Immunohistochemical for PD-L1 examination is stained in 25% tumor cells. The patient had received conventional chemotherapy and showed clinical improvement.

Discussion and Conclusion: The first differential diagnosis was between primary and metastatic malignancies of the brain, but the resection showed a metastatic adenocarcinoma. Further investigation showed primary adenocarcinoma of the lung. A comprehensive investigation is needed in this case.

Keywords: multiple metastatic, pericardial effusion, cardiac tamponade

THYMOMATYPEA

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Introduction: Thymoma type A is a rare mediastinal tumor and often affects adults compared to children, which is about 11.5% of all thymoma cases. This tumor that often attacks the black race and can be accompanied by the autoimmune disease Myasthenia Gravis. It is associated with a worse prognosis.

Case Description: Reported a 48 year old man with complaints of chest pain, shortness of breath, swollen face, and underwent surgery. On macroscopic examination, the tissue preparations originate from an anterior mediastinal tumor that has been split. The tumor mass partially forms a microcystic structure and lobules of varying size are separated by thick fibrous connective tissue septa. Microscopically, the tumor mass consisted of spindle cells predominantly and some immature lymphocytes with forming a hemangiopericytoma-like structure, partly adenoid-like structure with spindle-shaped nuclei, coarse and vesicular chromatin, prominent nucleoli, pale and eosinophilic cytoplasm.

Discussion and Conclusions: Based on the results of macroscopic and microscopic examination, this preparation was diagnosed as Thymoma type A, ICD-O 8581/3, C37.9

Keywords: Thymoma, thymoma type A, mediastinum tumor.

THYMIC ATYPICAL CARCINOID (NEUROENDOCRINE TUMOUR, GRADE 2)

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Background: Neuroendocrine tumours (NETs) have been described in many organs, but are most common in the gastro-enteropancreatic (GEP-NET) and pulmonary tract (PNET). In comparison, thymic neuroendocrine tumours (TNETs) are rare, accounting for less than 5% of mediastinal and thymic neoplasms, and 0.4% of all neuroendocrine tumours overall.

Case Description: A 57 years old man was admitted at Dr. Mohammad Hoesin General Hospital, Palembang due to worsening breathless, cough and dilatated vein on chest for six months. A chest-CT scan revealed a tumour mass of 18,6x11,7x11 cm localized in the anterosuperior mediastinum compressing both abdominal aorta and superior vena cava. CTguided for transthoracic needle aspiration (TTNA) and core biopsy revealed a NET Grade 2, mitoses were found to be 6/2 mm², cells were immunoreactive for synaptophysin; chromogranin, CD 56, AE1/AE3 and Ki67 was 9%. Currently patients are treated with Paclitaxel–Carboplatin for six cycles therapy.

Discussion and Conclusion: As for thymic atypical carcinoid (AC), most tumours show trabecular and resetting, solid nests growth patterns, the cytologic preparations are hypercellular and composed of dispersed or loosely cohesive monotonous population of tumor cells with frequent “plasmacytoid” appearance. Immunohistochemistry study shows that the tumor cells diffusely express neuroendocrine markers. Reported 5-year overall survival rates of ACs vary, from 20-70% up to 80%. Even in case of primary thymic atypical carcinoid, grade 2 NET, a multimodal approach could lead to long-term survival.

Keywords: Mediastinum; thymic; neuroendocrine tumour (NET); atypical carcinoid.

BLADDER ADENOCARCINOMA WITH HISTORICAL BLADDER EXSTROPHY IN YOUNG ADULT FEMALE: A CASE REPORT

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Background: Primary adenocarcinoma of the bladder is malignant tumor with histologically pure glandular differentiation. It accounts for 0.5-2% of all primary bladder malignancies. This tumor is more common in men than in women. Patients are usually in the sixth-seventh decade of life. The most common secondary tumor to involve the urinary bladder is colon adenocarcinoma. Morphologically, it is similar to enteric type bladder adenocarcinoma.

Case Description: An unusual case of bladder adenocarcinoma in a 43-year-old female with a history of bladder exstrophy. On a CT scan of the abdomen, an exophytic heterogeneous, isohypodense solid mass of the suprapubic region. Histopathological examination showed proliferation of cells with round pleomorphic nuclei and coarse chromatin forms irregular glandular and solid structures, infiltrates between the stroma. The immunophenotype showed positive CK 7, negative CK 20, non-specific p63, positive synaptophysin, negative chromogranin, and negative NSE (Non Specific Enolase) results. A diagnosis of primary bladder adenocarcinoma was then established.

Discussion and Conclusion: Due to the rarity of bladder adenocarcinoma, diagnosis might be challenging. The immunohistochemical staining pattern of primary adenocarcinoma of the bladder is variable. This case highlights the importance of correlating the clinical, radiological, and histopathological findings to establish the correct diagnosis.

Keywords: bladder exstrophy, bladder adenocarcinoma, young female

TRIPHASIC NEPHROBLASTOMA WITH EPIDERMAL CYST

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Background: Epidermoid cyst in nephroblastoma is a rare case. It usually occurring on the face, neck, body, perineum, spine and spleen. We presented this case because nephroblastoma with epidermoid cyst is a rare case based on histopathological appearance.

Case Description: A 1-year-old boy presented with complaints of an enlarged abdomen since 1 year ago. He has been diagnosed abdominal mass et causa neuroblastoma and the differential diagnosis was nephroblastoma. CT-Scan revealed from right hemiabdomen region, a large heterogeneous mass with mixed of hypo-isodense density, lobulated calcific and multilobulated inside ($\pm 15,8 \times 15,28 \times 16,1$ cm) was seen. Gross examination show a solid mass, white surface of the cut and the cyst contain dust/yellow putty mass. Microscopic examination show three components, they were blastemal cell, epithelial cell and stromal cell, there was also cyst structure and the surface contains of squamous epithelium with lamellar keratin inside the cyst.

Discussion and Conclusion: Nephroblastoma consists of three components, they are blastemal, epithelial and stroma. It has many patterns because its components differentiation. Nephroblastoma usually big and solitary. Macroscopically show white or red tissue, lobulated, soft, fragile and some show cystic. Epidermoid cyst usually occur on the face, neck and body. Microscopically show cystic structure and the surface contains of squamous epithelial and inside show ceratin mass. We present this case because nephroblastoma with epidermoid cyst is a rarely case based on histopathological appearance.

Keywords: Nephroblastoma, Epidermoid Cyst.

PARATESTICULAR LIPOSARCOMA: A CASE REPORT

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BACKGROUND: Paratesticular liposarcoma are a very rare variant of genitourinary malignancies occurring more often in the spermatic cord where it accounts for less than 12% of all liposarcomas.^{1,3,4}

CASE DESCRIPTION: A 73-year-old man presented with a testicular swelling that was progressively increasing in size over the last 3 years. An ultrasound was performed identifying a $\pm 10,5 \times 9,9 \times 8$ cm mass in the left scrotum. CT scan abdomino-pelvic with contrast did not show a normal right/left testis reading and identified multiple solid lesions and cystic $\pm 16.6 \times 9.6 \times 18.2$ cm, lobulated, heterogenous contrast enhancement. He underwent a left radical orchiectomy, continued with histopathological and immunohistochemistry examination (Vimentin, MDM2, dan CDK4). The results showed a well differentiated paratesticular liposarcoma.

DISCUSSION and CONCLUSION: Paratesticular liposarcoma is a malignant neoplasm of adipose tissue that arise from mesenchymal cells.⁶ There are 4 types of histological subtypes of liposarcoma. The prognosis of liposarcoma depends on the histological cell type. Well differentiated liposarcoma have a better prognosis than other histological subtypes of liposarcoma. Recurrence of well differentiated liposarcoma after complete resection is extremely rare.^{2,5} In this case, the clinical features, radiologic, histopathology and immunohistochemistry examination are consistent with well differentiated paratesticular liposarcoma.

Keywords: *paratesticular liposarcoma, mesenchymal tumor, adipocytic tumor*

MESONEPHRIC ADENOCARCINOMA OF THE CERVIX

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Background: A mesonephric adenocarcinoma (MNA) of the uterine cervix is an extremely rare neoplasm arising from the mesonephric duct (wolffian) remnants. The diagnosis of MNA is challenging because morphologically mimicking with other cervical carcinomas. MNA often initially misdiagnosed with benign mesonephric hyperplasia, endometrial endometrioid adenocarcinoma or usual-type endocervical adenocarcinoma.

Case Description: A 50 years old woman had complained about mass in the pelvic area since 3 months ago. Then patient was diagnosed with sarcoma of the uterine. The patient undergoes exploration laparotomy and the masses found on the posterior part of uterine. Histopathological finding and immunohistochemistry stain suggested mesonephric adenocarcinoma of the cervix.

Discussion and Conclusion: MNA is often widely infiltrative and may display a variety of architectural patterns, including tubular, solid, papillary, retiform, and ductal. The classic pattern is tubular with back-to-back tubules lined by cuboidal cell with lumina field with dense eosinophilic secretions (PAS and mucicarmine positive). The ductal (pseudoendometrioid) pattern consists of angulated glands lined by columnar cells. The solid foci may be partly or entirely spindled and these areas may be associated with heterologous differentiation (term malignant mixed mesonephric tumour). There is no grading to MNA. To distinct from benign mesonephric remnants and hyperplasia is based on architectural haphazard infiltrative growth, mitotic activity, intraluminal necrotic debris and nuclear atypia. The essential diagnosis MNA are the pattern, clear nuclei with grooves and p16 is not diffuse. Additionally positivity for GATA3, TTF1 and negative for ER and napsin A.

Keywords: Mesonephric adenocarcinoma, mesonephric carcinoma, adenocarcinoma of the cervix.

Invasive Breast Carcinoma No Special Type (IBC-NST)

Very hidayat, Lely hartati

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Background : Breast cancer is a heterogeneous group of tumors with various entities with different histological and morphological features, invasive breast carcinoma is the most common cancer in women. Invasive breast carcinoma no special type (IBCNST) refers to a large and heterogeneous group of invasive breast carcinomas that cannot be classified morphologically as one of its specific histologic types.

Case description a case: It was reported that a woman, Mrs, H, 59 years old, came for treatment to Haji Adam Malik General Hospital with complaints of a lump in her left breast. The procedure patient underwent surgery with specimen number O/1274/21. On macroscopic examination, the left breast tissue was received with a size of 21 x 14 x 5 cm. On cutting, there was a white-gray tumor mass with a diameter of 7 cm, some seemed to have infiltrated the fat tissue, the consistency was rubbery and brittle. lymph nodes with a volume of 10 cc, found 8 nodules with a size of 1 cm, chewy consistency and color. On microscopic examination, breast tissue was seen with a layer of stratified squamous epithelium. Subepithelial tumor mass appears mostly arranged in a trabecular and solid pattern, infiltrated between the stroma of fibrocollagenous connective tissue, consisting of tumor cells with enlarged nuclei, pleomorphic, highly variable in shape and size, rough chromatin, prominent daughter nuclei, eosinophilic. Mitosis was found >18/10 HPF (>18/0.237 field area), tumor cells appeared to have filled blood vessels. Infiltration of lymphocytes and plasma cells is slight around the tumor cells. The KGB preparation consisted of 8 nodules with almost the same picture, some follicular follicles appeared to form a germinal center containing lymphoid cells with various levels of maturation accompanied by widened sinusoids, no tumor cells were found.

Disssuccion and conclusions : Based on the results of macroscopic and microscopic examination, this specimen was diagnosed as invasive breast carcinoma of no special type, ICD-O: 8500/3, angioinvasion (+), mitoses found >18/10 HPF (>18/0.237 field area), grading according to modified scarff bloom-richardson: grade 3, with tumor infiltrating lymphocytes (TILs) mild grade (low)

Keywords : invasive ductal carcinoma, ductal carcinoma, no special type

PRIMARY NEUROENDOCRINE CARCINOMA OF THE BREAST (NECB) IN 11-YEAR-OLD CHILDREN: A CASE REPORT

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Background : The incidence of the rare neuroendocrine breast tumors comprises 2–5% of all breast carcinomas. According to the latest WHO Classification, primary neuroendocrine neoplasm (NEN) of the breast consists of well-differentiated neuroendocrine tumors (NET), extremely aggressive neuroendocrine carcinomas (NEC) as well as invasive breast cancers of no special type (IBCs-NST) with neuroendocrine differentiation. The accurate diagnosis of NECB remains a challenge for its low incidence. NECB occur predominately in postmenopausal women; however, it has also been reported in younger patients.

Case description : An 11-year-old patient came to Cipto Mangunkusumo hospital with chief complaint of breast lump and back pain. From radiological examination showed tumor mass in the left breast. Microscopically, tumor mass was solid and infiltrative, with high vascularization. Tumor cells had round and hyperchromatic nuclei, with inconspicuous nucleoli. Tumor cells had scant and eosinophilic cytoplasm. Mitosis were found >25/10 HPF. Some rosettes / pseudorosettes structures and crushed artefacts could be seen. Immunohistochemistry staining were positive for chromogranin, synaptophysin, NSE, CD56, and GATA3. The staining were negative for P63, CK5/6, CD34, LCA, and desmin. Ki67 proliferation index had 35% positivity. Histopathology and immunohistochemistry results were in line with neuroendocrine carcinoma.

Discussion and conclusion : The diagnosis of NECB was made by morphology and immunohistochemistry staining of neuroendocrine markers. The essential differential diagnosis of NECB is a metastatic NET from the extramammary site.

Keywords : NECB, histopathology, immunohistochemistry

GIANT CELL-RICH OSTEOSARCOMA

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Introduction: Osteosarcoma is an intramedullary high-grade sarcoma in which tumour cells produce bone and it is the most common malignant bone tumor characterized by the formation of disorganized immature bone or osteoid tissue from mesenchymal tumor cells. Giant cell-rich osteosarcoma is an extremely rare histologic variant, accounting for only 1%–3% of conventional osteosarcoma.

Case description: Reported a case Mr. R, 26 years old, surgery for right femoral bone tumor with diagnose of primary bone tumor right distal femur susp malignant. Slide number O/2671/21. Microscopic examination found that around the tumor and bone were atypical and pleomorphic tumor cells, enlarged nuclei, round, oval, to spindle shapes, irregular nuclear membrane, hyperchromatism, prominent nucleoli, eosinophilic cytoplasm. Atypical mitotic is easy to find. Among the tumor cells, there was an eosinophilic amorph mass (osteoid) also appear to form a "lace like" appearance and non-neoplastic osteoclast-like giant cells mixed with malignant giant cell tumor. Proliferative blood vessels were seen that were dilated and congested with interstitial bleeding. Necrosis is found.

Conclusion: From macroscopic and microscopic examination, this case can be concluded as a giant cell rich osteosarcoma, grade II with ICD-O CODE 9180/3.

Keywords: Giant cell rich, osteosarcoma, bone.

KAPOSIFORM HAEMANGIOENDOTHELIOMA IN GLOSSUS: A RARE CASE

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Background: Kaposiform haemangioendothelioma is a rare neoplasm of intermediate malignant potential derived from vascular endothelial cells characterized by lobular infiltrates of capillaries and spindled endothelial cells associated with lymphatic vessels. Kaposiform haemangioendothelioma most commonly affects the skin and deep soft tissues of the extremities, head and neck, trunk, and retroperitoneum. Although kaposiform haemangioendothelioma eventually arises in the skin of the head and neck, and more rarely in deep tissues, intraoral cases are extremely rare.

Case Description: One case was reported by Hasan Sadikin Hospital in 2022. Case report of a man, 17 years of age came in with a lump on the right tongue. On examination of the head CT scan with contrast, it was found that solid mass seemed to come from the base glossus dextra. Macroscopically, 2 pieces of tissue were received with a size of 1.5 x 1 x 0.4 cm and a diameter of 0.4 cm. Microscopically, coalescing nodules were found composed of fascicles of plump spindled endothelial cells that contained erythrocytes with a prominent component of dilated lymphatic vessels seen at the periphery. Immunohistochemically, the tumor were positive for CD31 and positive low proliferation for KI67.

Discussion and Conclusion: The conclusion of histopathology and immunohistochemistry is kaposiform haemangioendothelioma. This is a rare example of a haemangioendothelioma develop in the glossus.

Keywords: Kaposiform haemangioendothelioma, vascular neoplasm, glossus

GIANT CHONDROID CHORDOMA OF THE MEDIASTINUM CASE REPORT

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BACKGROUND: Chordoma is rare malignant tumor arising from remnants of notochord, it accounts for 1–4% of all primary bone tumors. Clivus is the most common location whereas thoracic chordomas account for 1-2% of all chordomas, especially as soft tissue mass in mediastinum is extremely rare. This leads to frequent misleading diagnosis due to non-specific symptoms, and the clinician's misperception of this rare entity.

CASE REPORT: A 37 years old man, with no previous medical history, complaining numbness of his legs for 1-2 month, which followed by difficulty moving his legs. Physical examination revealed inferior paraplegia. MRI thoracic wall revealed mediastinal mass destroyed corpus, spinous processes, laminae, transverse processes of VTh 3 extending to spinal canal, pressing spinal cord as high as VTh 3-4 levels, causing cord edema. This patient underwent thoracotomy and hemilaminectomy to exploration of tumor mass which extended to spine. Histopathological examination showed cells with bubbly cytoplasm (physaliphorus cells) embedded within a myxoid matrix and arranged in lobules between matrix chondroid. Immunohistochemical examination was done and showed positive stain for Cytokeratine AE1/AE3, EMA, S100 and negative stain for CK7 and CK20.

DISCUSSION AND CONCLUSION: Diagnosis of chordoma requires careful evaluation by multidisciplinary team. Radiological examination with MRI typical in chordoma is collar button or mushroom like feature with destruction of vertebral body and also important for planning surgery. Histopathological and immunohistochemistry are gold standart examinations to determine the diagnosis and exclude some differential diagnoses of chondroid chordoma in mediastinum.

KEYWORD: Chordoma, Chondroid chordoma, Chordoma in mediastinum.

ALVEOLAR RHABDOMYOSARCOMA MIMICKING EWING SARCOMA IN A 13-YEAR-OLD PATIENT A Case Report

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Background: Rhabdomyosarcoma originates from primary mesenchymal cells generally 90% occur under 25 years old and 70% occur in children under 10 years old. It is a small round blue cell tumor, mimicking Ewing's sarcoma with the number of incidence about 4.5 cases per year per 1,000,000 children. In rare cases, it is found in extraskeletal or extraosseous.

Case Description: A 13-year-old boy came with complaints of a lump on his left hand 3 months ago: Size 16x6.5 cm, Fixed, Solid Consistency. The MRI showed a heterogeneous solid mass in the left antebrachial region 1/3 proximal to distal which urged and forced the left antebrachial vasculature to the posterolateral and received arterial feeding from the ulnar artery branching, forming malignant soft tissue mass, differential diagnosis of sarcoma. Histopathology showed tumor mass with a diffuse pattern, rosette, and trabecular. Another focus shows neoplastic cells forming an alveolar-like pattern with rhabdoid cell morphology. The edges of the neoplastic cells are arranged in a palisade. The focus of coagulative necrosis can be observed. Immunohistochemical reveal a positive diffuse stain for Desmin on cytoplasm tumor cells and a negative diffuse stain for CD99 on membrane tumor cells.

Discussion and Conclusion: The neoplastic cell component is diffusely patterned monotonous, rosette, alveolus-like cells as well as rhabdoid. An immunohistochemical examination reveal and positive diffuse stain for Desmin and a negative diffuse stain for CD99 which could guarantee a presence of Alveolar rhabdomyosarcoma. Based on clinical, imaging and pathologic findings this case concluded as alveolar rhabdomyosarcoma.

Keywords: *Alveolar, Rhabdomyosarcoma, Children*

DIAGNOSTIC CHALLENGING IN ADRENAL CORTICAL CARCINOMA CASE OF 47 YEARS OLD MAN : A CASE REPORT

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Background : Adrenal cortical carcinoma (ACC) is a malignant epithelial tumor of adrenal cortical cells. It's a rare carcinoma that occurs at 0.5-2 case per 1 million population. ACC related with P53 R337H mutation. The median patient age at diagnosis is fifth to sixth decade of life, but can also occur in children. Most cases of ACC involve a single adrenal gland. This tumor is aggressive, causing many changes in the body because it produces excessive hormones.

Case Description : We report a 47 years old man with complaints of flank area pain since 10 months. Patient also complained of a palpable mass in the left abdomen since 6 months accompanied loss of appetite and weight loss. Physical examination and imaging revealed a left adrenal mass. After adrenalectomy, we got 13 x 12 x 8 cm mass with 985 gram in weight. Histopathological examination showed tumor growths with high nuclear grade arranged in a solid sheet, tumor penetrates the capsule, prominent nucleoli, and < 25% areas of clear cells. Extensive areas of necrosis, hemorrhage and atypical mitosis founded. Diagnosis ACC was then established.

Discussion and Conclusion : Due to the rarity of ACC, diagnosis might be challenging. Differential diagnoses might include adrenal cortical adenoma and oncocytoma, pheochromocytoma, renal cell carcinoma, hepatocellular carcinoma, and metastatic melanoma. Correlation of clinical, radiological, laboratory, histopathological findings and immunohistochemical evaluation needed to rule out differential diagnosis and establish the correct diagnosis

Keywords : adrenal cortical carcinoma, adrenal gland, endocrine tumours

ADRENOCORTICAL CARCINOMA : A CASE REPORT

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Background : Adrenocortical carcinoma (ACC) is a rare and aggressive malignancy with an incidence of 0.5-2 cases per million. This tumor has poor prognosis.

Case Description : A 58 years old woman, complaining of intraabdominal mass. Computerized tomography (CT) scanning revealed heterogeneous mass with enhancement in the adrenal region. Gross description, shows a yellow tumour with foci of haemorrhages and necrosis, with a diameter of approximately 13 cm. Histologic description, the mass shows solid distribution of malignant cells with round, oval, pleomorphic, hyperchromatic nuclei, coarse chromatin, prominent nucleoli, abundant eosinophilic cytoplasm, numerous mitosis and lymphovascular invasion, accompanied with altered reticulin framework. Immunohistochemical demonstrated positive expression of Inhibin and Synapthophysin. Chromogranin show focally positive. Ki-67staining was 5%.

Discussion : The histopathological diagnosis of ACC based on a combination of morphological, immunohistochemical feature, clinical history and physical examination data. Distinguishing adrenal cortical adenomas from carcinomas may be a difficult diagnostic problem, the criteria of Weiss are very useful, include tumor size, tumor necrosis and mitotic activity including atypical mitoses. ACC expresses Inhibin markers specific for steroid producing, Cytokeratin weakly positive, Vimentin strongly positive. Synaptophysin is usually positive. The prognosis of patients with ACC is poor.

Conclusion : We reported the case of a rare Adrenocortical carcinoma with unfavorable prognosis.

Keywords : Adrenocortical carcinoma, Immunohistochemistry

METASTATIC FOLLICULAR VARIANT OF PAPILLARY THYROID CARCINOMA (FV-PTC) IN KIDNEY CLINICALLY MIMICKING RENAL CELL CARCINOMA (RCC)

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Background: Metastasis of thyroid carcinoma to the kidney is a rare case. Follicular carcinomas are the most common, whereas papillary carcinomas, including the follicular variant is extremely rare. Only few reports described a metastatic case presented as solitary tumor in kidney with an occult lesion in the thyroid.

Case Description: We present a 77-year-old woman with obstructive ileus symptoms. Abdominal-CT revealed a right kidney mass, suspected of RCC. Nephrectomy specimen showed a 10-cm well-circumscribed yellow tan solid mass, confined to the kidney, without tumor extension. Histopathological examination showed a circumscribed neoplasm with follicular growth pattern. Follicle cells showed nuclear membrane irregularities, grooves, clearing, and pseudoinclusions. A diagnosis of metastatic FV-PTC with differential diagnosis of PTC-like RCC was made. Immunohistochemical staining revealed positive expression of TTF1 and thyroglobulin. Final diagnosis of FV-PTC was determined.

Discussion and Conclusion: In this case, patient's serum thyroglobulin was high although there was no previous history of thyroid disease. Therefore, occult thyroid carcinoma must be further tracked. Histologically, the morphology of FV-PTC and PTC-like RCC is quite identical. Immunohistochemistry study using CD10, RCC, and vimentin antibody as RCC marker, and TTF1 and thyroglobulin antibody as marker for PTC is mandatory.

Keywords: renal cancer, occult thyroid carcinoma, secondary tumor

GASTRIC ADENOSQUAMOUS CARCINOMA

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Background: Gastric Adenosquamous Carcinoma (GAC) is a very rare entity. It is only about 0.25% of all gastric malignancies and characterized by the presence of two components, namely adenocarcinoma and squamous cell carcinoma in the same tumor. These tumors are more aggressive and have a poorer prognosis than gastric adenocarcinoma.

Case Description: Reported a case from 70 year old woman. Histopathological appearance showed an antral gastric mass, consisting of glandular proliferation that formed a mostly solid and partially tubular and acinar structure. Glands with pleomorphic cuboidal epithelial lining with enlarged nuclei, round and oval in shape, irregular nuclear membrane, rough chromatin, protruding nuclei, eosinophilic cytoplasm. In some foci, tumor nests were seen consisting of a proliferation of squamous cells \pm 40% of the tumor mass, with enlarged nuclei, round and oval shapes, irregular nuclear membranes, coarse chromatin, abundant and eosinophilic cytoplasm with intercellular bridges and keratin masses. Atypical mitoses are found. The stroma consists of fibrous connective tissue infiltrated by tumor cells and moderately inflammatory cells of lymphocytes. Tumor cells also appear to infiltrate to the serous layer. Blood vessels are dilated and congested. Necrosis and interstitial hemorrhage were seen. Tumor cells infiltrated blood vessels and lymph vessels but no invasion to the nervous tissue.

Discussion and conclusion: From the histopathological picture it show Gastric Adenosquamous carcinoma, LVI(+), PNI(-), moderately TILs, ICD/O 8560/3, C 16.3/C.16.4

Keywords : gastric, adenosquamous carcinoma

A 52-YEAR-OLD FEMALE WITH DUODENAL HETEROTOPIA OF THE ILEUM

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Background: Heterotopic of the gastrointestinal tract is rare and is partly an incidental finding. Most cases were gastric heterotopia (less than 13%) and pancreatic heterotopia (less than 2%). Duodenal heterotopia is an extremely uncommon form of heterotopia. There are only a few reports of duodenal heterotopia; mostly found in the stomach, and there was only 1 case of duodenal heterotopia in the ileum reported by Kumar in 2017.

Case Description: A 52-year-old female went to the emergency unit with abdominal pain. The history and physical examination lead to a suspected mass, with a differential diagnosis of colitis. The MSCT scan of the abdomen showed an irregular circumferential thickening of the ileal wall measuring 1 cm, suggesting ileitis; mass cannot be excluded. At the time of surgery, a mass was found at the ileocecal junction, suggesting invagination, ileal tumor, or caecum tumor. On sectioning of the specimen, there was no mass; only a thickened, eroded mucosal area with a narrowed lumen. Microscopically, the mucosa is eroded with lamina propria full of eosinophils, neutrophils, lymphocytes, and plasma cells accompanied by the destruction of crypts and Brunner's glands.

Discussion and Conclusion: The diagnosis of duodenal heterotopia was based on the findings of Brunner's glands in the mucosa, submucosa and muscularis propria of the ileum, as in the case reported by Kumar. The relationship between heterotopia and gastrointestinal complaints, especially the inflammatory process in this patient, is still unclear. Data on the impact of duodenal heterotopia are still very limited, so further follow-up is necessary in this patient.

Keywords: Duodenal heterotopia, Brunner's glands heterotopia

MALIGNANT EPITHELIOID GASTROINTESTINAL STROMAL TUMOR IN ILEUM

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Background: GIST incidence reaches 11-19.6 cases per million people in the world. Epithelioid GIST in the ileum is a rare case, only 30% in the small intestine, and epithelioid histology type is only 20% of all GIST.

Case Description: A 58-year-old man complained of stomach cramps for 2 months. Abdominal CT scan showed an intraluminal solid mass, irregular edge in the ileum, nodules with central necrosis, in the left lobe of the liver smaller size nodules of the metastasis process. Macroscopic examination shows the tumour mass on the ileum measuring 10 cm in diameter. Histopathological examination showed the proliferation of diffuse mesenchymal neoplastic cells forming fascicles pattern. The cells were spindle shaped with oval to spindle nuclei, with the perinuclear cytoplasmic vacuole. There were also mild pleomorphic neoplastic cells that have a broad eosinophilic cytoplasm, and epithelioid morphology. Partially showed severe nuclear atypia with coarsely granular chromatin and conspicuous to prominent nucleoli. Mitosis was 15/5mm². Immunohistochemical examination was positive for CD 117, DOG1, and CD34, but negative for S100, SMA, and Desmin.

Discussion and conclusion: Cases of Epithelioid GIST in the ileum are rare. Epithelioid histology type is only 20% of all GIST cases. The prognosis of these patients is poor with category 6a and the progression of the disease (metastases and death from the disease) reaches 85%.

Keywords: epithelioid, gastrointestinal stromal tumor (GIST), malignant, CD117 mutation

PRIMARY MATURE TERATOMA OF LIVER: A CASE REPORT

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Background: Hepatic teratoma is a rare germ cell tumor. The number of reported cases of hepatic teratoma in adults recorded until 2018 was 11 cases. The diagnosis of hepatic teratoma is a challenge due to unspecific clinical signs and symptoms. In addition, liver is not located in the migration pathway of primordial germ cell. Some cases are discovered “accidentally” after imaging the patient is done.

Case Description: This article presents case of a 31-year-old woman who came with a cystic mass in the abdomen. The CT scan showed a mass in segment VIII of the liver with a round shape, regular border, measuring 7.7 x 7.2 x 6.4 cm which consisted of cystic, fat and calcified components. At the time of surgery, a cystic mass of 6 x 6 x 6 cm was found in segment VIII of the liver and multiple stones in the gallbladder. Histopathologically, excision of the mass showed cyst wall tissue lined with squamous epithelium and stroma containing sebaceous glands, hair follicles and glial component.

Discussion and Conclusion: Hepatic teratoma with non-specific clinical signs and symptoms can obscure the clinician in determining the diagnosis and providing adequate treatment. The diagnose can be made based on histopathological diagnose, supported by clinical and radiological findings. Sufficient data reports are required regarding cases of hepatic teratoma to formulate a diagnosis of hepatic teratoma, especially in cases with a cystic component containing mass.

Keywords: *Germinal Cell Tumor, Mature Teratoma, Liver*

DUCTAL ADENOCARCINOMA PANCREAS LAPORAN KASUS DAN REVIEW LITERATUR

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Latar belakang: Menurut data dari Globocan tahun di tahun 2020, kasus kanker pankreas menempati urutan ke-16 yang terbanyak dari seluruh jenis kanker yang ada di Indonesia. Sedangkan, jumlah kematian akibat kanker pankreas berada di urutan ke-11. Kebanyakan pasien didiagnosis pada usia 55-85 tahun dengan rasio Laki-laki: perempuan sebesar 1,1:1. Dengan prognosis yang buruk dan angka kematian yang tinggi.

Deskripsi kasus: Tulisan ini akan melaporkan satu kasus pada seorang Wanita usia tua disertai review literature. Seorang Wanita 66 tahun datang dengan skleral icterus, mual, muntah, serta gatal di seluruh tubuhnya. Temuan laboratorium termasuk bilirubin direct 10 mg/dL, bilirubin indirek 9,74 mg/dL, total bilirubin 22,50 mg/dL, SGOT 383 U/ L, SGPT 265 U/L dan CA19-9 151,00 u/L. Pemeriksaan MRI abdomen ditemukan caput pancreas membesar dengan ukuran 2,22,9cm, tepi ireguler, tidak homogen, corpus dan cauda normal, ductus pancreaticus agak melebar, obstruksi ekstrahepatik. Secara makroskopis, didapatkan massa tumor pada caput pankreas, berukuran 6 x 3 x 2,5 cm, Pada irisan tampak warna putih abu-abu, tepi ireguler, meluas hingga ke proksimal dan distal pankreas. Secara mikroskopis, terdiri dari sel-sel epitelial anaplastik yang membentuk pola gland-like structure yang ireguler. Sel tumor tampak invasi diantara asini pancreas dan meluas ke jaringan lemak sekitar. Morfologi sel dengan inti bulat oval, N/C meningkat, sitoplasma eosinofilik, pleomorfik sedang, nukleolus menonjol, mitos 9/10HPF. Stroma menunjukkan desmoplastik dengan invasi perineural. Pewarnaan CK7, CK19, CK8 positif dan CK20, Hepar-1 negatif.

Hasil & Kesimpulan: Berdasarkan dari data klinis, laboratorium, radiologi, temuan histopatologi, serta pewarnaan imunohistokimia maka disimpulkan sebagai *pancreas ductal adenocarcinoma* grade 2, pT3. Mengingat prognosis yang buruk dan angka kematian yang tinggi maka *follow up* rutin yang ketat sangatlah diperlukan.

Kata kunci: *pancreas ductal adenocarcinoma, ductal adenocarcinoma, Pankreas.*

GASTRIC INFLAMMATORY MYOFIBROBLASTIC TUMOR: A RARE CASE REPORT

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Background: Inflammatory Myofibroblastic Tumor (IMT) is a rare mesenchymal tumor that usually affects lung and found mostly in children and young patients. The etiology is unknown. This tumor can be resembled other tumors and therefore poses a diagnostic challenge. Establishing the correct diagnosis is needed for the best therapeutic management.

Case description : A 4-years-old girl went to emergency room with hematemesis and melena. Laboratory analysis revealed anemia, elevated ESR, leukocytosis, and decreased albumin level. Abdominal CT scan confirmed a 9 cm gastric solid mass. Histopathological examination showed the cellular tumor arranged in longitudinal and transverse fascicles consisting medium to large polymorphic cells with eosinophilic cytoplasm. Nuclei were fusiform, spindle, and oval, some with coarse chromatin and prominent nucleoli. Many inflammatory cell infiltrates could be observed. The stroma was myxoid with hyalinization area. The case was diagnosed as spindle cell tumor with differential diagnosis of IMT, Gastrointestinal Stromal Tumor (GIST) and Leiomyosarcoma. Immunohistochemical staining showed positive ALK, negative DOG1, CD117, and desmin. Therefore, final diagnosis of IMT was confirmed.

Discussion and Conclusion: IMT composed of myofibroblastic spindle cells with numerous inflammatory cells. Other spindle cell tumors like GIST, Leiomyosarcoma, Fibrosarcoma or Malignant Peripheral Nerve Sheath Tumor (MPNST) should be considered as differential diagnosis that can be differentiated by immunohistochemistry examination. IMT has a good prognosis with 15% to 37% recurrence rate within a year after surgery. Complete surgical resection is one of important treatment. Other treatment with specific tyrosine kinase inhibitors may also be considered.

Keywords: IMT, GIST, Leiomyosarcoma, ALK

LARYNGEAL CHONDROSARCOMA

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ABSTRACT

Laryngeal chondrosarcoma is a malignant mesenchymal tumor originating from the hyaline cartilage in the larynx, is a rare case. This case is reported to occur in less than 0.1% of head and neck neoplasms and less than 1% of all laryngeal neoplasms. A case is reported from Hasan Sadikin Hospital, a 72-year-old man with chief complaint of shortness of breath since 2 years before his admission to the hospital, which was preceded by a hoarse voice. The patient underwent a laryngoscopy examination with the results of a tumor in the larynx. Head and neck CT scan showed a mass with calcification in the supraglottic, glottic and subglottic areas. After performing the fourth biopsy from incisional biopsy in the front neck lump and biopsy through laryngoscopy, the histopathological features of grade 2 laryngeal chondrosarcoma were performed. The diagnosis of laryngeal chondrosarcoma in this case is a challenge due to the rarity of these cases and inadequate samples being an obstacle to diagnosis.

Key words : Chondrosarcoma, Larynx

CORRELATION BETWEEN SREBP 1c AND ACTIVATED HEPATOCYTES IN TYPE 2 DIABETIC-INDUCED HEPATOCELLULAR CARCINOMA IN RAT

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Background: Hepatocellular carcinoma (HCC) is known to be a relative risk for chronic liver disease and type II diabetes (T2DM). Increased sterol regulatory-element-binding-protein-1c (SREBP1c) in T2DM enhance lipogenesis in the liver then induce the development of HCC. However, the correlation between the level of SREBP1c and the number of activated hepatocytes in the development of HCC from histopathological perspective is still unclear.

Objective: To evaluate the correlation between T2DM and HCC by measuring the level of SREBP1c and the number of activated hepatocytes in rats.

Methods: Wistar rats were divided into control group, T2DM group injected with streptozotocin, and T2DM-HCC group injected with streptozotocin and diethyl nitrosamine (DEN). SREBP1c level were detected with western blotting and the number of activated hepatocytes were measured using *ImageJ* software. Pearson Correlation Coefficient was used to analyze the correlation.

Results and Discussion: The liver section of T2DM rats showed a normal architecture with dilated sinusoids and vacuolization in some of hepatocytes, while the T2DM-HCC rats showed disruption of hepatic architecture with liver nodules consisting pleomorphic cells, enlargement of hepatocytes with high nucleus to cytoplasmic ratio, darkening of nuclei with clumping of chromatin and prominent nucleoli. The level of SREBP1c and activated hepatocytes in both groups demonstrated significant mean difference when compared to the control group. The correlation test showed coefficient $r=0,475$; $p\text{ value}=0,037$.

Conclusion: This study from histopathological perspective shows a positive correlation between SREBP and activated hepatocytes in the progression of T2DM to HCC.

Key Words: Wistar rats, SREBP1c, Activated hepatocytes, T2DM, HCC.

SOLID PSEUDOPAPILLARY NEOPLASM: A RARE PANCREATIC TUMOR

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Background: Solid pseudopapillary neoplasm (SPN) of the pancreas is an extremely rare pancreatic tumor with low malignant potential and good overall prognosis. Microscopically, it is similar to other pancreatic neoplasms with no specific biomarkers, making pathological diagnosis difficult.

Case Description: A 36-year-old woman came with abdominal pain in the epigastrium since one year prior to admission. There was no weight loss, cold sweats, bloody urine or stool. She was diagnosed with gastro-oesophageal reflux disease. Computed tomography scan found a cystic mass of 4x5.5cm on the head of pancreas. Endoscopic ultrasound-fine needle aspiration biopsy was done on March 2022. Cytologic results revealed tumor cells with papillary arrangement and fibrovascular core. Tumor cells were round/oval with mild pleomorphic nucleus, dense chromatin, eosinophilic cytoplasm and some with nuclear grooves. Leukocytes were also present. IHC revealed positive β -catenin, PR, CD56, locally positive synaptophysin, and negative results on chromogranin and CAM5.2. Cytology and IHC analysis supported the diagnosis of solid pseudopapillary neoplasm.

Discussion and Conclusion: SPN is usually observed in young women most commonly with abdominal pain. Only 1% SPNs are located in the caput pancreas, oftentimes presenting with jaundice. Around 80% patients have typical CT features of cystic tumors. Haematoxylin and eosin staining typically shows eosinophilic cytoplasm and a round, centered nucleus with rare nuclear atypia. IHC analysis combined markers such as β -catenin, vimentin, Syn, PR, and CD10, etc for its diagnosis.

Keywords: *solid pseudopapillary neoplasm*

MALIGNANT TRITON TUMOR OF THE NECK

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Background: Malignant Triton Tumor (MTT) is a rare variant of malignant peripheral nerve sheath tumors (MPNST) with striated muscle formation. The diagnosis of MTT must meet the criteria for the diagnosis of MPNST and evidence of rhabdomyoblast differentiation. This case is discussed because its incidence is rare, is 5-10% of all MPNST. The prognosis in most MTT patients is poor, and because of their rarity, large number of case studies are lacking.

Case Description: A 34 year old woman came to the Head-Neck Surgery clinic, RSUD Dr. Soetomo Surabaya with complaints of a lump in the upper front neck on the left. On physical examination, there was a skin-colored mass in the left anterior colli region that extended to the left infraauricular size +/- 20 x 20 x 15 cm with a hard solid consistency, flat surface and not well defined. Microscopic examination showed well-defined tumor growths in “marble-like” pattern, and the fascicles were partially arranged in palisade. The tumor consists of oval to spindle nucleated cells, pleomorphic, coarse chromatin, narrow cytoplasm. And from the immunohistochemical examination, Vimentin was found positive, S100 was positive and Desmin was positive, which is in accordance with the description of Malignant Triton Tumor.

Conclusion: MTT is a rare variant of MPNST with rhabdomyoblastic differentiation that behaves more aggressively than MPNST in general, and thus has a poorer prognosis. The diagnosis of MTT is established by histopathological and immunohistochemical examination

Keywords/Keywords: Malignant Triton Tumor, MTT, Malignant Peripheral Nerve Sheath Tumors, histopathology, immunohistochemistry

PAGETOID RETICULOSIS: A RARE SUBTYPE OF MYCOSIS FUNGOIDES

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Background: Pagetoid reticulosis (PR) also known as Woringer-Kolopp disease is a rare distinct variant of mycosis fungoides that presents with a large erythematous, slow growing, usually solitary scaly or verrucous plaque. Lesions are typically found on the distal part of the limbs. We reported the first case of Pagetoid reticulosis in Hasan Sadikin Hospital from 2017-2022.

Case Description: We present a case of a 40 years old woman with red erythematous and white plaque on lateral side of right foot which expanded in the last 9 months but reported no pain or itch. Chromoblastomycosis and tuberculous infection was initially suspected. A biopsy was performed and histopathological examination shown exocytosis of atypical lymphocyte on basal of epidermis and immunohistochemistry composed of CD3, CD20, CD56, CD7, CD8, CD4, CD30, Granzyme and Ki67 was performed and revealed a final diagnosis was pagetoid reticulosis. This patient currently undergoes a surgical excision of the mass and was performed skin graft and scheduled to have radiotherapy session.

Conclusion: Pagetoid reticulosis is a rare variant of mycosis fungoides that can mimic a lot of clinical features of other disease, so biopsy of the mass and immunohistochemistry was crucial in this case which usually have a positive immunostaining for CD8, CD30, and high proliferation rate with positivity for Ki67.

Keywords: Pagetoid reticulosis, Mycosis fungoides

CRANIOPHARYNGIOMA IN A 36 YEAR MAN IN THE BRAIN ORGANS: A CASE REPORT

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Background: Craniopharyngioma (CP) is a rare embryonic malformation of the sellar/parasellar region with a low histological grade. Craniopharyngioma is a slow growing tumour that only manifests clinically after the tumour grows to a size of about 3 cm or more. This paper reports a case of a 36-year-old man with craniopharyngioma.

Case Description: A 35-year-old man came to Sanglah Hospital with complaints of headaches in the past 6 months, decreased vision, nausea and vomiting. On complete blood laboratory examination, there is a decrease in Hb, an increase in leukocytes and NLR. There is an increase in blood glucose, and decrease in BUN, creatinine, FT4 levels, potassium and sodium. On MRI examination of the head, the image of a dominant cystic mass, extra axial in the intrasellar extending to the suprasellar accompanied by an intracystic nodule, and pressing the chiasma opticum superiorly suggests a suspected Rathke cleft cyst dd/ hypophysis macroadenoma. On biopsy examination, histomorphology conclusions were found to be suitable for papillary craniopharyngioma, WHO grade I.

Discussion and Conclusion: Craniopharyngioma histologically is a benign tumour, a partially cystic epithelial tumour in the sellar area which is thought to originate from the embryonic remnant of the Rathke pouch epithelium. This case reports a 36-year-old man, complaining of headache, nausea, vomiting, and reduced vision. From the clinical picture, radiology, histopathology and immunohistochemical examination, this case was concluded as papillary craniopharyngioma, WHO grade I.

Keywords: Craniopharyngioma, papillary craniopharyngioma, Rathke cleft cyst, macroadenoma hypofisis.

PRIMARY OSTEOLYTIC METAPLASTIC MENINGIOMA : CASE REPORT

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Background: Primary intraosseous meningioma is a rare tumor and metaplastic pathologic components including osteolytic lesion, dura, and soft tissue invasion are highly uncommon. This primary osteolytic metaplastic meningioma is the first time diagnosed in Makassar.

Case Description: A 56-year-old woman with a lump of the left frontal region and headache. CT scan revealed a mass in the left frontoparietal, consistent with a primary bone tumor, resulting in a destructive skull lesion and a rightward shift of the midline. Intraoperatively lesion was found intradural with bone destruction. The tumor is completely removed. Microscopically show oval to spindle nuclear cells with fibrillary cytoplasm, some area showed wavy nuclei, with atypical and relatively pleomorphic cells with lack of mitosis count. The tumor mass has a lipomatous and osseous component, with infiltrative growth between muscle, fat, and connective tissue. Differential diagnostic is neurofibroma. Immunohistochemistry showed EMA positive and S-100 negative.

Discussion and Conclusion: Metaplastic meningioma is a subtype of meningioma which is classified as WHO grade 1 and includes rare cases of 0.8% of WHO grade 1 meningiomas, with a low post-surgical recurrence rate and good prognosis. It is defined as the presence of focal or widespread mesenchymal components, including osseous, cartilaginous, lipomatous, myxoid, or xanthomatous tissue, singly or in combination. It shows likely neurofibroma with atypical nuclei but its immunohistochemistry EMA positive and S-100 negative, so we concluded this case as metaplastic meningioma CNS WHO grade 1.

Keywords: Primary Osteolytic Metaplastic Meningioma, Meningioma.

OSTEORADIONECCROSIS WITH SUPERIMPOSED FUNGI MYCETOMA INFECTION OF THE MANDIBULAR REGION: A RARE CASE

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Background: Osteoradionecrosis (ORN) is defined as an area of exposed irradiated bone tissue that fails to heal over a period of 3 months without a residual or recurrent tumor. ORN is one of the most serious complications of head and neck radiotherapy, which is considered a public health problem worldwide. Mycetoma is a chronic granulomatous infection which may involve bone. Fungi mycetoma in the maxillofacial region is a rare entity and long-term disease-causing osteomyelitis may possess a diagnostic challenge.

Case Description: A 63-year male with swelling and slight tenderness in the right mandible for 4 years, which was initially suspected as a malignancy. There was history of nasopharyngeal carcinoma in 2009. Surgery, chemotherapy and radiation were performed. Radiological findings showed osteolytic lesion with pathological fracture of the mandibular ramus. Hemimandibulectomy with right mandibular plate internal fixation was performed.

Discussion and Conclusion: Histopathology feature showed necrotic bone with absent osteoblast and empty osteocytic lacunae. There was also grain-like structure or clusters filaments of fungi between necrotic bones, thickening blood vessels, connective tissue with inflammatory cells and multinucleated giant cell. Histochemical examination was non specific for Gram's stain and positive for GMS and PAS stain. The conclusion consistent with fungi mycetoma infection. Diagnosis was made not only based on the clinical presentation and radiological finding but also histopathological and histochemical staining. Accurate identification of osteoradionecrosis and fungi mycetoma as a causative agent is a prerequisite for the treatment of the disease.

Keywords: osteonecrosis, osteoradionecrosis, infection, mycetoma, eumycetoma, mandible.

COMPLETE ANDROGEN INSENSITIVITY SYNDROME IN A 22-YEAR-OLD WOMAN : A CASE REPORT

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Background. : Androgen insensitivity syndrome (AIS) is an X-linked recessive genetic disorder. This disorder is caused by mutations involving the androgen receptor. AIS can be divided into; complete, partial or mild. The prevalence of AIS has been estimated to be one case in every 20,000 to 64,000 newborn males for the complete syndrome (CAIS). The clinical features of CAIS include the presence of female external genitalia and inguinal hernia and absent of spermatogenesis.

Case Description : A 22-year-old girl presents with primary amenorrhea. Physical examination revealed palpable masses in both inguinal regions, tanner hair, visible labium major, labium minor, and clitoris. An MRI examination of the pelvis revealed the uterus was absent and a short vagina. A karyotype analysis was performed, a 46XY. Laboratory examination showed luteinizing hormone (LH) 25,3 mIU/mL, follicle-stimulating hormone (FSH) 11,5 mIU/mL, estradiol < 5 pg/ml and testosterone 0,04 ng/ml. FNAC from the inguinal mass showed a cluster of cells that are medium to large and relatively uniform with nuclei that show smooth cell membranes and granular chromatin. The immunostaining of CD117 and CD10 was performed and the FNAC showed the presence of Sertoli cells without spermatogonia.

Discussion and Conclusion : In this case, the clinical appearance was that of a female. However, FNAC and karyotyping analysis revealed a male. Multidisciplinary collaboration is essential for diagnosis and management. The focus management are helping a gender assignment, providing hormone replacement and gonadectomy to prevent malignant transformation.

Keyword : CAIS; inguinal; amenorrhea

TWIN TO TWIN TRANSFUSION SYNDROME : THE IMPORTANCE OF IDENTIFYING VASCULAR ANASTOMOSIS PATTERN, A CASE REPORT

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Background : The twin-to-twin transfusion syndrome (TTTS) is a severe complication of monochorionic twin pregnancies, caused by transfusion of blood from one fetus (the donor) towards the other fetus (the recipient) through placental anastomoses. TTTS is driven by unidirectional deep arterio-venous anastomoses, and mitigated by bidirectional superficial arterio-arterial or veno-venous anastomoses which reduce the inter-twin transfusion. Herein we report a case of TTTS with double fetal mortality.

Case Description : We described a monochorionic twin pregnancy of 31-year-old woman with TTTS, through caesarean sectio delivered Twin-A, weight 650 grams, suffered for stuck twin, anhidramnion, fetal growth retardation and dead within 72 hours after birth. Twin-B, weight 1300 grams, dead within 4 hours caused by hydrops fetalis. Placenta delivered later indicate monochorionic diamniotic with methylene blue injection exhibit superficial arterio-arterial anastomoses of T zone area. Histopathology shows Twin-A's (donor) placenta has varying size immature villi, some with accelerated maturation and capillaries contain nucleated erythrocyte. Twin-B's (recipient) placenta has large edematous villi with congested vessels.

Discussion and conclusion : The risk of perinatal morbidity and mortality in twins is 3–7 times higher than in singletons. The highest risk is monochorionic twins with absence of arterio-arterial anastomoses. Pregnancies with double mortality usually had an arterio-arterial anastomoses, while pregnancies complicated by one death, usually had a veno-venous anastomoses. Identifying the vascular anastomoses pattern is fundamental to establish the diagnosis of TTTS and predict the risk of morbidity dan mortality of the fetus.

Keywords : TTTS, monochorionic twin pregnancy, vascular anastomoses.

FINE NEEDLE ASPIRATION BIOPSY FOR DETERMINING THE DIAGNOSIS OF HISTOPLASMOSIS IN A HIV-POSITIVE PATIENT

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Background: Histoplasmosis is a mycotic infection caused by dimorphic fungus, *Histoplasma capsulatum*, mostly in immunocompromised and a notable endemic disease among immunocompetent patients. In a study in Jakarta, seven HIV-positive patients are diagnosed with disseminated histoplasmosis based on the histopathologic findings. With the advancement of ultrasound-guided fine-needle aspiration (FNA) techniques, a marked increase in the cytologic diagnosis of histoplasmosis in immunocompromised patients is noted.

Case Description: A 41-year-old HIV-positive man presented with progressive swelling on his left neck, low grade fever, weight loss, fatigue and cough since 1 month. He was suffered for HIV infection for 3 years with poor adherence to anti-retroviral therapy unfortunately. The physical examination revealed left cervical lymphadenopathy measuring 6-8 cm. The clinical diagnosis of tuberculosis lymphadenitis was made. Fine needle aspiration biopsy of left cervical lymph node was performed. Cytology specimen showed large number of oval and round yeast-like organisms with eccentric chromatin and clear halo inside and outside histiocytes, highly suggestive for histoplasmosis. Periodic acid-Schiff (PAS) staining was done on cell block and PAS-positive organisms were identified. Thus, diagnosis of histoplasmosis was determined.

Discussion & Conclusion: Human immunodeficiency virus (HIV) is a classical risk factor in histoplasmosis. The unspecific symptoms of histoplasmosis often mimicking other endemic disease in Asia such as tuberculosis. Pathologist, as the diagnostician who has duty to find the cause of the diseases, must consider histoplasmosis in HIV-positive patients who are non-compliant with their antiretroviral therapy. Cytopathology and histopathology examination with special staining for fungal infection such as PAS is important method in diagnosing histoplasmosis. Fine needle aspiration is a cheap, simple, and rapid method to diagnose histoplasmosis although further microbiological culture for fungal organisms is recommended to precisely detect the organism.

Keywords: histoplasmosis, HIV, FNAB, special stain

PRIMARY SIGNET RING CELL CARCINOMA (PSRCC) OF THE UTERINE CERVIX: A RARE CASE REPORT AND BRIEF REVIEW OF THE LITERATURE

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Background:

Primary signet-ring cell carcinoma (PSRCC) of the uterine cervix is extremely rare. Signet ring cell carcinoma in the uterus mostly occur due to metastasis from another primary organ, such as the gastrointestinal tract or breast. The clinical characteristic of this entity is not well known. This type of cancer is considered aggressive, and it is typically diagnosed at advanced stages resulting in poor survival.

Case Description:

A 39-year-old female presented with features of severe cervicitis. Histopathological examination from biopsy specimen revealed signet ring cell carcinoma. Whole abdominal MRI with contrast was performed, no tumors were detected in other abdominal organs. A radical hysterectomy, right salpingectomy, left salpingo-oophorectomy, transposition of the right ovary, and bilateral pelvic lymphadenectomy were performed. Intraabdominal organs were also explored to rule out other possible primary tumor origin. Histopathological examination from the resection specimen revealed that, more than half of the cervical mass consisted of noncohesive, infiltrative individual signet ring cells. In addition, glandular, trabecular, and solid patterns were also found. These findings were similar to prior cervical biopsy.

Immunohistochemistry examination was performed to confirm the cervical origin of the tumor.

Discussion and Conclusion:

Due to its rarity, PSRCC of the uterine cervix is diagnosed by excluding tumors from extragenital origins, such as GI tract, breast, lung, or bladder. PSRCC is classified as HPV-associated cervical cancer. Morphology and IHC staining are used to determine the primary site and exclude secondary tumor. PSRCCs are challenging cases and require clinicopathological correlation to diagnose definitively.

Keywords: signet ring cell, primary cervical neoplasm, PSRCC

PARTIAL HYDATIDIFORM MOLE

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Background: Hydatidiform mole (HM) is a form of Gestational Trophoblastic Disease (GTD) which involves the formation of villi, histologically there are abnormal changes in the placenta. Abnormal chorionic villi displaying normal to enlarged villous ridges, with irregular contours with mild focal trophoblastic hyperplasia.

Case description: It is reported that a 36-year-old woman G3P2A2 (3 weeks gestation) came for treatment at a private hospital in Medan. On macroscopic examination of several pieces of curettage tissue from the endometrium (O/21.09.262), heavy fragmented tissue appeared: 47.4 grams, irregular in shape, some in the form of bubbles filled with red-brown liquid like fish eyes, the largest size: 2 x 1.4 x 0.6 cm, and the smallest size is 0.3 x 0.2 x 0.2 cm. Microscopic examination of tissue preparations from endometrial curettage, villous protuberances with varying sizes and shapes, some of the villi were hydropic degenerated, with proliferative trophoblast cells lining, irregular villi shape with scalloped surfaces, also visible villi that were small (fibrotic). In some foci found villi with connective tissue stroma with blood vessels containing nucleated red blood. Massive interstitial hemorrhage and mononuclear inflammatory cells were seen.

Discussion and Conclusions: Based on the results of macroscopic and microscopic examination, it was diagnosed as a partial hydatidiform mole, with ICD-O coding 9103/0. Topographic morphology C58.9

Keywords: Hydatidiform mole, partial

SQUAMOUS CARCINOMA CELL YANG BERASAL DARI MATURE CYSTIC TERATOMA OVARY: LAPORAN KASUS DAN REVIEW LITERATUR

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Latar belakang: *Squamous carcinoma cell* yang timbul dari *mature cystic teratoma* di ovarium merupakan kasus yang jarang terjadi. Kasus ini lebih sering terjadi pada wanita perimenopause dan wanita yang lebih tua, dan umumnya dengan prognosis yang buruk. Tulisan ini akan melaporkan satu kasus disertai review literature.

Deskripsi kasus: Tulisan ini akan melaporkan satu kasus pada seorang Wanita usia tua disertai review literature. Seorang wanita berusia 65 tahun dengan keluhan massa pada abdomen sejak 8 tahun yang lalu yang makin lama makin membesar. Dari pemeriksaan USG abdomen ditemukan adanya massa kistik dengan multiple lesi *hyperechoic* sesuai untuk gambaran *dermoid cyst* ovarium. Dilakukan pembedahan dan pemeriksaan patologi. Makroskopis tumor berupa kista mengandung sebum dan dengan bagian solid (dermal plak). Mikroskopis pada dermal plak dinding kista ovarium yang tampak mengandung komponen ectodermal berupa jaringan kulit dengan adneksa kulit dibawahnya, komponen mesoderm berupa jaringan ikat matur, jaringan lemak matur serta kondrosit dan komponen endodermal berupa epitel kolumnar bersilia yang merupakan bagian dari jaringan respiratorius. Sebagian massa tumor terdiri dari proliferasi sel-sel epitel *squamous* berlapis membentuk pola pulau-pulau solid, trabecular infiltrasi diantara stroma desmoplastik. Tampak pula gambaran keratin pearls dan area nekrosis.

Hasil & Kesimpulan: Berdasarkan gambaran tersebut disimpulkan suatu *squamous carcinoma cell* yang berasal dari transformasi maligna *mature cystic teratoma* ovarium. Mengingat prognosis yang buruk maka follow up rutin yang ketat teliti sangatlah diperlukan.

Kata kunci: *squamous cell carcinoma, mature cystic teratoma, ovarium.*

PRIMARY MYXOID LIPOSARCOMA AT THE OVARY OF 40-YEARS OLD PREGNANT WOMEN, A CASE REPORT.

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Background : Myxoid liposarcoma accounts for about 30% to 35% of all liposarcomas and is commonly seen in the deep soft tissue and Extremities. Primary soft-tissue sarcoma of the ovary is uncommon.

Case Description : A rare case from 40-years old pregnant women with complaints of enlarged abdomen since 8 months and also 2 months pregnant. On abdominal ultrasonography examination, a solid mass filled the probe on the right ovary. patient underwent salphingo oophorectomy dextra surgery at 20 weeks pregnant. From the surgical specimen, an ovarian solid mass was 27x21x12 cm with gelatinous material. Histopathological examination tumor growth forming a microcystic pattern consisting of proliferation of small ovoid cell, uniform, increased cellularity on peripheral tumor, There are lipoblast cells in the form of a signet ring , branching vasculature to form a chicken wire, embedded in myxoid stromal. The Case Diagnosed as myxoid liposarcoma with differential diagnosis signet-ring stromal tumor, microcystic stromal tumor and ovarian myxoma. Immunohistochemistry staining positive for S100 and Vimentin, CD34 positive in branching vasculature. EMA, Cyclin D1, Calretinin antibody were negative.

Discussion and Conclusion : Myxoid liposarcoma of the ovary is a rare case. Myxoid liposarcoma is characterized proliferation of small ovoid cell, uniform, increased cellularity on peripheral tumor, branching vasculature (chicken wire) in myxoid stromal. Immunohistochemistry variably positive for S100, CD34 positive for vasculature and Cyclin D1, Calretinin and EMA to exclude the differential diagnosis.

Keywords : Myxoid liposarcoma, Ovarium.

DIAGNOSTIC CHALLENGE TO ESTABLISH HIGH GRADE SEROUS CARCINOMA OF THE OVARY WITH SOLID AND TRANSITIONAL PATTERN RESEMBLING MALIGNANT BRENNER TUMOR

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Background: High grade serous carcinoma (HGSC) is one of the most lethal gynecological malignancies worldwide with increasing incidence. Diagnosis of this tumor is challenging due to histologic resemblance to malignant Brenner tumor.

Case description: A 54-year old woman was referred to gynecologist with abdominal pain for 1 year. Abdominal ultrasonography revealed indented bladder by ovarian mass. Ca125 serum level was 74,18 U/ml. The mass was clinically suspected as malignant ovarian tumor. We received fragmented tissues, tan white in color. Histopathologically, tumor exhibit both solid and transitional patterns, high grade nuclear atypia, and numerous mitotic figures. We diagnosed HGSC solid and transitional pattern, with differential diagnosis malignant Brenner tumor. Immunohistochemical analyses of tumor cells show strongly positive for p16, CK7, p53, ER and negative for CK20 and GATA3. These results confirmed the diagnosis for HGSC with solid and transitional pattern.

Discussion and Conclusion: Solid and transitional pattern HGSC is a rare case and diagnostically challenging, especially in small, fragmented tissues. In our case, tumor has solid and transitional pattern, confusing for HGSC and malignant Brenner tumor.

Immunohistochemistry is essential to confirm the diagnosis. Positive expression of p16, CK7, mutant P53, and ER supported the diagnosis of HGSC. Moreover, in establishing malignant Brenner tumor, benign and borderline component of this tumor must be identified. Despite being aggressive tumor, HGSC is chemosensitive, thus, proper diagnosis is crucial.

Keywords: HGSC, Brenner tumor, transitional, solid, ovary tumor

BOTRYOID EMBRYONAL RHABDOMYOSARCOMA IN YOUNG ADULT

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Background: Embryonal rhabdomyosarcoma case in young adult is very rare, accounting for only 7% of all rhabdomyosarcoma cases. Approximately 15-20% cases of embryonal rhabdomyosarcoma are of genitourinary origin and botryoid type is most frequently found in children under 5-years-old. Here, we report a case of bladder botryoid embryonal rhabdomyosarcoma in young adult.

Case description: A 20-years-old male presented with haematuria, suprapubic pain, and dysuria for the past year. The MSCT examination showed a solid mass in the inferior aspect of the bladder measuring 8.8 x 8.2 x 7.8 cm. Partial cystectomy was performed. Gross examination showed fleshy nodular polypoid projections resembled cluster of grapes. Histopathological examination showed a tumor contained hypocellular and hypercellular area with a loose, myxoid stroma. The tumor cells were spindle with minimal eosinophilic cytoplasm and eccentric nuclei. Immunohistochemistry study revealed positivity of desmin and myogenin. The final diagnosis of botryoid embryonal rhabdomyosarcoma was made.

Discussion and conclusion: Embryonal rhabdomyosarcoma is classified into three different types, namely botryoid, spindle cell, and anaplastic variant. Botryoid embryonal rhabdomyosarcoma presents as a grape-like (botryoid) growth pattern. Botryoid type case in young adults rarely occurs. The differential diagnosis for considerations in young adults are other tumors with small-round-cell morphology. Desmin, myogenin, or MyoD1 are valuable marker to rule out the differential diagnosis. The prognosis and survival rate of rhabdomyosarcoma in young adults are worse than children. Multimodal therapy and reevaluation are needed for better prognosis.

Keywords: bladder cancer, small round blue cell tumor, immunohistochemistry, desmin, myogenin

PLEOMORPHIC CARCINOMA OF THE LUNG

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Background: Pleomorphic carcinoma is a poorly differentiated non-small cell carcinoma, including squamous cell carcinoma, adenocarcinoma or large cell carcinoma (LCC) with at least 10% spindle or giant cell components or entirely spindle and giant cell components. Pleomorphic carcinoma is a rare case, accounting for 2-3% of all surgical cases of NSCC but <1% in epidemiology. Its incidence is often in the seventh decade of life. More suffered by men than women.

Case Description: We report a case of a 58-year-old woman with a chief complaint of shortness of breath since 1 month ago. The patient was diagnosed with pleomorphic carcinoma of the lung and underwent cytology of bronchial brushing coded CS/1151/22, cytology of bronchial lavage coded CS/1152/22 and tissue biopsy coded B/1153/22. On microscopic examination, there was a proliferation of cells with a pleomorphic shape with a round oval nucleus, some bizzare and eccentrically located, vesicular chromatin, abundant cytoplasm and eosinophilic. The stroma consists of fibrous connective tissue infiltrated by tumor cells and inflammatory cells.

Discussion and Conclusion: Based on the results of macroscopic and microscopic examinations, the patient was diagnosed with pleomorphic carcinoma of the lung with ICD – O: 8022/3 with a topography of C34.9.

Keywords: pleomorphic carcinoma, lung cancer, lung

PLEUROPULMONARY BLASTOMA

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Background: Pleuropulmonary blastoma (PPB) is a rare malignant lung tumor in children below 6 years old. These tumors usually located in the parenchyma and/or pleura. A germline mutation is genetic predisposition factor for the disease. Pleuropulmonary blastoma has 3 subtypes, including type I (cystic), type II (cystic/solid) and type III (completely solid).

Case Description: We reported a 2-years-old child suffering dyspnea since 1 week ago. In physical examination, there was a significant increase of breath. The results of Computer Tomography scan showed a heterogeneous mass that well circumscribed, regular edges, calcified and shifted the mediastinum in contralateral. Histopathological examination showed solidly arranged cells with eosinophilic elongated cytoplasm showed positive desmin.

Discussion and Conclusion: Pleuropulmonary blastoma is a rare intrathoracic malignancy arising from the lung parenchyma and or pleura. Diagnosed in children less than 6 years of age. This is caused by pathogenic germline variants in DICER1, an essential component of the microRNA processing pathway. PPB can contain blastemata and sarcomatous elements. We concluded this case as a pleuropulmonary blastoma type III based on the histopathological examination. Prompt radiological and histological testing are crucial for early diagnosis and differentiation, which would highly influence the outcomes and survival rate.

Keywords: Childhood rare cancer, Pleuropulmonary Blastoma, DICER1, Desmin

CLEAR CELL RENAL CELL CARCINOMA

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Background. *Clear Cell Renal Cell Carcinoma* (ccRCC) is a morphologically heterogeneous malignant tumor derived from renal tubular epithelial cell. ccRCC is the most common type of sporadic RCC in adults.

Case Description. We reported a case of a 55-year-old woman with complaint of low back pain, then the woman underwent a left nephrectomy. Macroscopically, the left kidney tissue was split, weighing 250 grams, 3 x 2 x 1,8 cm in size, grayish yellow, and chewy consistency. Microscopically, it shows proliferation of tumor cells that are in solid pattern separated by thin-walled blood vessels. Tumor cells are found with enlarged nuclei, round and oval, rough chromatin, some hyperchromatic, protruding nucleolus with mostly clear cytoplasm and some eosinophilic cytoplasm. Stroma consists of fibrous connective tissue infiltrated by inflammatory cells.

Discussion and Conclusion. Pattern of ccRCC is solid, alveolar, tubular and cystic, containing thin-walled blood vessels, some with clear and some with eosinophilic cytoplasm. Many of the ccRCC contain eosinophilic cytoplasm generally in high grade tumors, and contiguous areas and hemorrhage. The nucleus is usually round with chromatin distributed. The nucleolus can be inconspicuous and protruding, bizarre or large nuclei with no nucleolus can also be found depending on the grading. The stroma is *fibromyxoid*. Based on macroscopic and microscopic findings, we diagnosed this case as ccRCC, ISUP grade III.

Keywords: *Clear cell, renal cell carcinoma*

INCIDENTAL GALL BLADDER ADENOCARCINOMA IN A WOMAN WITH PRE-OPERATIVE DIAGNOSIS OF BILE STONES A CASE REPORT

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Background : Gallbladder carcinoma is a malignant neoplasm originating from the biliary epithelium of the gallbladder. This carcinoma is very rare, the symptoms are non-specific, and are often found incidentally on pathological examination of cholecystectomy specimens for other reasons.

Case description : A 60 years old woman complained right upper abdominal pain. On ultrasound examination, multiple stones, sludge and acoustic shadow were seen in the gallbladder, with the conclusion of acute cholecystitis with cholelithiasis. Durante cholecystectomy, confirmed stones, and cholecystectomy tissue was sent for pathological examination. Macroscopically, gallbladder measuring 19x13x5.5 cm, filled with a white-grey tumor mass, brittle, and poorly demarcated. Microscopically, the tumor mass was composed of proliferative malignant columnar cells form broad glandular pattern with intraluminal tufting and micropapillary growths, invasive to the muscularis layer. Vassa invasion was identified. It was diagnose as adenocarcinoma, biliary subtype, moderately differentiated, with positive lymphovascular invasion (LVI). Further clinical and radiological evaluation showed suspicions of metastases in the liver, lung and proximal 1/3 of the left humerus, consistent to stage IVB. The patient died about 8 months postoperatively.

Discussion and conclusion: Adenocarcinoma of gall bladder is often found incidentally. Every cholecystectomy specimen must undergo pathological examination to identify the existance of this neoplasm. Among all adenocarcinoma subtypes, billiary subtype being the commonest one. Grade, stage and LVI are the main prognostic factors, therefor its important to determine. Based on histopathological, clinical and radiological findings, this case was concluded as gallbladder adenocarcinoma, biliary subtype, moderately differentiated, stage IVB, with poor prognosis.

Keywords: biliary subtype adenocarcinoma, gallbladder, cholelithiasis

SARCOMATOID CARCINOMA OF THE URINARY BLADDER: A CASE SERIES

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Background : Sarcomatoid carcinoma of the urinary bladder is a rare malignant tumor and has poor prognosis. It shows a biphasic malignancy of epithelial and mesenchymal differentiation from morphology and/or immunohistochemical staining.

Case Description: Case 1 was a 67 years-old male, ex-smoker, who had complaint of painless gross hematuria. Abdominal CT scan revealed a mass on the lateral wall of the bladder. He underwent cystoprostatectomy, histopatological featured showed high grade sarcoma. Further immunohistochemistry confirmed the sarcomatoid carcinoma as it was positive for CK5, CK7, GATA 3 and vimentin.

Case 2 was 87 years-old male, active smoker, with painless gross hematuria. Abdominal CT scan showed a mass on the superior wall of the bladder. He underwent trans-urethral resection of bladder tumor, histopatological featured showed epithelial component of infiltrating urothelial carcinoma and heterologous chondrosarcoma as mesenchimal component.

Discussion and Conclusion: Sarcomatoid carcinoma can be diagnosed by conventional Haematoxylin and Eosin examination. Further examination with immunohistochemistry could be performed to confirm the epithelial and mesenchymal component. Carcinomatous component will be positive with CK5/6, GATA3, CK7 and other epithelial marker. Sarcomatous component will be positive with vimentin, and other mesenchymal marker. There could be markers crossover. Heterologous component could also be found and associated with poor prognosis.

Histopathology and immunohistochemistry play an important role in establishing the diagnosis and hence guiding the further management and overall prognosis.

Keywords: Sarcomatoid carcinoma, bladder cancer, heterologous, urothelial carcinoma.

ANOTHER CASE REPORT OF EOSINOPHILIC GRANULOMATOUS PROSTATITIS

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Background : Eosinophilic granulomatous prostatitis is a term related to non specific chronic granulomatous inflammation of the prostate which commonly seen in men 50 to 69 years old. It is uncommon, presents in less than 1% of prostate specimens and accounts for approximately two thirds of all granulomatous process of the prostate. It sometimes mimicking high grade carcinoma, clinically, histologically and biochemically. Herein, we report a case of eosinophilic granulomatous prostatitis in a man with history of prostate enlargement and elevated serum PSA level.

Case Description : A 70-year-old man with history of benign prostate hyperplasia, presented with fever, general malaise, dysuria and perineal pain over a week. The patient has a history of atopy. Digital rectal examination show tenderness on prostate with areas of fluctuation. Laboratory finding show eosinophilia and elevated PSA serum over 100 ng/mL. Abdominal imaging show prostate enlargement with mild hydronephrosis. Transurethral resection was performed and histopathology show epithelial and stromal proliferation with granulomas and foci of necrosis mimicking high grade carcinoma, within diffuse acute and chronic inflammation, predominant eosinophils.

Discussion and conclusion : Eosinophilic granulomatous prostatitis is rare benign inflammatory lesion within the spectrum of no specific granulomatous prostatitis. The epithelioid histiocytes and foci of necrosis sometimes mimicking high grade carcinoma but this lesion known as benign lesion which resolve with steroids and antibiotics. Immunohistochemistry for PSA and histioscytic marker can be usefull in difficult cases.

Keywords : Eosinophilic granulomatous prostatitis, acute, chronic, inflammation

UNUSUAL CASE OF EMBRYONAL RHABDOMYOSARCOMA OF THE PROSTATE

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Background : Prostate rhabdomyosarcoma (PR) is a rare mesenchymal tumor and accounts for less than 1% of malignant prostate tumors. Due to its rarity and morphologic similarity with other mesenchymal tumors sometimes it is difficult to determine the diagnosis of PR.

Case description: A five years- old male child has urinating difficulty accompanied by pain. CT scan of the abdomen shows an inhomogeneous, solid, and cystic mass between the bladder and rectum. The histopathological examination from the prostate biopsy showed a highly cellular tumor arranged in a fascicular pattern, with myxoid stroma. Some tumor cells surround blood vessels and invaded the prostatic gland and stroma. Tumor consisted of proliferation moderate to large spindle-shaped cells with eccentric nuclei, coarse chromatin, and high mitotic activity. Necrosis was observed in some areas. Immunohistochemical examination showed positive staining of desmin and myogenin. Histopathological and immunohistochemical findings confirmed the diagnosis of embryonal rhabdomyosarcoma.

Discussion and Conclusion: Diagnosis PR should be established based on clinical, radiological, and pathological data. Because of their morphological similarity with other mesenchymal tumors, immunohistochemical staining is mandatory to avoid misdiagnosis so that the patients receive the best management. The management of PR is complicated and therefore requires a multidisciplinary approach.

Keywords: embryonal rhabdomyosarcoma, prostatic cancer, immunohistochemistry

CHROMOPHOBE RENAL CELL CARCINOMA

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Background: Renal Cell Carcinoma (RCC) is the most common carcinoma of the kidney, comprises about 3% of all malignancies. Chromophobe Renal Cell Carcinoma (ChRCC) is a subtype of RCC, with the incidence of 4-6% of all RCC.

Case description: This article presents a case of 53 years old male with enlarged left kidney, clinically diagnosed as type 4 Bosniak cyst. The pathology examination of left nephrectomy specimen reveal 5000 grams kidney tissue with 23x22x13 cm in size. There was a solid and friable tumor measuring 22x21x12 cm, unencapsulated, brown colored with necrosis area. The microscopic examination revealed tumor forming solid nests, consisted of polygonal cells displaying irregularly rounded nuclei, raisin-like and coarse chromatin, with granular and eosinophilic cytoplasm. On immunohistochemistry examination, the tumor cells revealed diffusely positive for CK7 and negative for vimentin.

Discussion and Conclusion:

Chromophobe Renal Cell Carcinoma is a rare malignant kidney tumor. There is no unique clinical symptom for this subtype of Renal Cell Carcinoma. It is essential to have an adequate histopathology and immunohistochemistry diagnostic for proper result.

Keywords: Renal Cell Carcinoma, Chromophobe Renal Cell Carcinoma.

GIANT ADRENAL CORTICAL CARCINOMA A CASE REPORT

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Background: Adrenal Cortical Carcinoma (ACC) is a rare malignant neoplasm arising from adrenal cortical cells, with incidence at 0,5 – 2 cases per 1 million population per year.

Case description: a 49-year-old woman came with an abdominal enlargement and weight loss for 2 months. A palpable mass in the right abdominal regio was identified. Abdominal CT scan showed a solid mass within right adrenal. Adrenalectomy specimen revealed a large solid mass, 22x19x13 cm in size, yellow to tan color, circumscribed, with foci of hemorrhages and necrosis. Microscopically, the tumor cells arranged in difuse architecture, solid trabecular and nested pattern. These cells had round-ovoid to bizzare morphology, with single to multiple round-ovoid nuclei with hyperchromatic to vesicular chromatin, and conspicuous nucleoli. Mitotic figure can be found (18/50 HPF), with positive capsular and vasa invasion, and also periadrenal fatty tissue invasion. Some necrosis area could be found.

On immunohistochemistry examination, the tumor cells were stained negative with Chromogranin, AE1/3, CD56, Calretinin, Inhibin, and Synaptophysin. The diagnosis was Adrenal Cortical Carcinoma.

Discussion and Conclusions: ACC is a disease of diverse clinical and pathological presentations. The diagnosis of ACC needs to rely on assessment of multiple pathological parameters. The most widely accepted system adopted by WHO classification for assessment is Weiss criteria. Based on morphology and immunohistochemistry, this case is Adrenal Cortical Carcinoma, with unfavourable prognosis.

Keywords: adrenal cortical carcinoma, adrenal tumor, immunohistochemistry

DIAGNOSTIC ACCURACY AND ANALYSIS OF CYTOMORPHOLOGICAL FINE NEEDLE ASPIRATION BIOPSY IN SALIVARY GLAND LESIONS BASED ON THE MILAN SYSTEM FOR REPORTING SALIVARY GLAND CYTOLOGY (MSRSGC) CLASSIFICATION

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Background: Fine needle aspiration cytology is an effective and safe method assessing salivary glandular lesions. Varied morphological features and overlapping cytomorphologic features make it difficult to diagnose salivary gland lesions.

Objective: This study aims to determine the diagnostic accuracy and analyze the cytomorphological images of aspiration of salivary gland lesions based on The Milan System for Reporting Salivary Gland Cytology (MSRSGC).

Methods: A search for cytological preparations for salivary gland lesions in 2015-2019 was carried out in the archives of the Department of Anatomic Pathology, FKUI / RSCM.

Result: There were 81 cases of salivary gland lesions from 2015-2019 which were assessed and reclassified based on MSRSGC, consisting of 8 non-diagnostic cases, 1 non-neoplastic case, 1 case of atypical of undetermined significance (AUS), 39 cases of benign tumors, 10 cases salivary gland neoplasm of undetermined malignant potential (SUMP), 6 cases of suspicious for malignancy (SFM) and 16 cases of malignant tumors. Three of these cases had a different diagnosis that gave false negative results on non-diagnostic preparations and benign tumors. The sensitivity value was 91.17%, specificity 97.43%, positive predictive value (PPV) 96.87%, negative predictive value (NPV) 92.68% and 94.52% accuracy.

Conclusion: The diagnosis of fine needle aspiration cytology can be accurately confirmed by a combination of clinical information and radiological examination, but for a definitive diagnosis, histopathologic examination is still required. MSRSGC classification is very helpful in the diagnosis of salivary gland cytology.

Keywords: fine needle aspiration, salivary gland lesions, MSRSGC, diagnostic accuracy

Disclaimer

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METAPLASTIC CARCINOMA OF THE BREAST WITH HORMONE RECEPTOR SUBTYPE: A CASE REPORT

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Background: Metaplastic carcinoma is a rare disease of breast cancer. Characterized by differentiation of neoplastic epithelium towards squamous cells and/or mesenchymal elements.

Description: We report a woman, aged 48 years with a lump in left breast. On microscopic examination with stratified squamous epithelial lining. In subepithelial, tumor mass appears with a biphasic component (epithelial component and mesenchymal component). The epithelial component forms a structure in form of nests, trabeculae, and cords. Atypical and pleomorphic epithelium, round to oval nuclei, increased N/C ratio, coarse chromatin with prominent nucleoli, partially hyperchromatic, eosinophilic cytoplasm with clear intercellular boundaries. Mesenchymal component consists of mesenchymal cell proliferation forming fasciculus and herring-bone structures. Atypical and pleomorphic mesenchymal cells, oval to spindle nuclei, hyperchromatic, some coarse chromatin, eosinophilic cytoplasm with indistinct intercellular boundaries. There is also chondroid differentiation with atypical nuclei, multinucleated giant cells and bizarre cells. Mitosis >20 mitoses/0,196 mm² field area. Stroma consists of fibrous connective tissue with infiltration moderate of lymphocytes. Extensive interstitial hemorrhage and necrosis. Invasion of tumor cells into blood vessels was found, and no invasion of tumor cells into perineural. Results of immunohistochemical examination in cases showed ER (+), PR (-), HER2 (-), high Ki67 (>20%).

Discussion and Conclusion: Although TNBC subtype is the most common in metaplastic carcinoma, the hormone receptor subtype also occurs. In this case, a microscopic image was found that was in accordance with literature. We diagnosis with metaplastic carcinoma of the breast with hormone receptor subtype, ICD-O 8575/3, C50.9.

Keywords: metaplastic carcinoma, breast cancer, hormone receptor

RELATIONSHIP BETWEEN PD-L1 EXPRESSION AND PROGNOSTIC FACTORS IN CERVICAL CANCER PATIENTS

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Background: HPV-related cervical cancer has caused an increase in PD-L1 expression which is significantly associated with prognostic factor such as primary tumor enlargement (T), lymph node involvement (N) and distant metastases (M), considered as factors. the most significant prognostic in cervical cancer patients. Other prognostic factors include age, and quality of life.

Objective: To determine the relationship between PD-L1 expression level and prognostic factors in cervical cancer.

Methods: This study was an analytic observational study with a cross sectional design. The number of samples in this study were 40 paraffin blocks of cervical cancer at the Laboratory of Pathology Anatomy, dr. Kariadi Semarang. PD-L1 expression is semiquantitative and is rated on a 4 level scale based on the percentage of positive cell membranes. PD-L1 expression was categorized into 0 = <5% positive cells, the intensity of staining was assessed as negative. When $\geq 5\%$ of tumor cells were positive, the expression of PD-L1 was assigned as positive with the following levels 1 = 5-29%; 2 = 30-59%; 3 = >60%, and was assessed for its relationship with the prognostic factors. Semiquantitative assessment of PD-L1 expression by the researcher and one Anatomic Pathologist. The conformity of the reading results was tested by using the Kappa test. Hypothesis testing was analyzed by Fisher-exact. The relationship was declared significant if $p < 0.05$. The correlation coefficient is calculated based on Pearson's R. Data analysis using the SPSS for Windows version 25 program.

Keywords : Cervical Cancer, PD-L1, TNM, Age, and Quality of Life.

DIFFERENCES IN EXPRESSION OF STAT6 AND SSTR2A IN SOLITARY FIBROUS TUMORS/HEMANGIOPERICYTOMA (SFT/HPC) WITH MENINGIOMAS

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Backgrounds: Solitary fibrous tumor / hemangiopericytoma (SFT / HPC) is a fibroblastic type of meningeal mesenchymal tumor with a branching pattern of blood vessels. These tumors have morphological features similar to meningiomas. Very few cases of SFT/HPC were found, while meningiomas cases were found more. WHO data, the prevalence of SFT / HPC is less than meningiomas, which is less than 1% compared to 36% cases. Data from the Department of Anatomical Pathology, Faculty of Medicine, University of Indonesia, Dr. Cipto Mangunkusumo, during the period from January 2010 to December 2016, it found that there were 53 cases of SFT/HPC diagnosis in RSUP. Dr. Kariadi Semarang, in the period from January 2017 to December 2020, 10 cases were found. While the number of cases of meningioma grades I, II and III from the same time and place, there were 889 cases, with the highest proportion being fibroblastic, transitional and meningiothelial meningiomas 463 cases.

Histologically, SFT/HPC and meningiomas have some similarities. SFT/HPC tumors in addition to spindle-shaped tumors, branching vessels such as deer antlers and fascicles with intercellular collagen were also found, while meningioma tumors with spindle-shaped structures composed of fascicles with intercellular collagen were often found in the meningiothelial, fibrous, and transitional types. Molecularly the fusion of NAB2 and STAT6 genes showed gene inversion at the 12q13 locus, transcriptional activator STAT6 was influenced by the SH2 domain for STAT binding to the phosphorylated cytoplasmic domain of cytokine receptor activation, furthermore gene fusion of the NAB2 transcriptional repressor with the STAT6 transcriptional activator was detected. Expression of the NAB2-STAT6 fusion protein was confirmed in SFT, and the predicted fusion product containing the early growth response binding domain (EGR) of NAB2 fused with the STAT6 activation domain, overexpression of the NAB2-STAT6 fusion gene induces proliferation in cells. The somatostatin receptor gene (SSTR) 2 located on chromosome 17q25.1 is expressed diffusely in meningiomas, the main signaling cascade from SSTR 1 to 5 is to inhibit adenylate cyclase activation and decrease cAMP, whereas SSTR 1, 2, and 3 have antiproliferative effects by inducing one or more PTPs (Protein tyrosine phosphatases), which can influence the mitogenic MAP Kinase proliferation pathway and the PI3K pathway for cell survival.

The therapeutic management of SFT/HPC and meningiomas differs according to the histologic grade. SFT and meningiomas depend on histologic grade. Solitary fibrous tumor/hemangiopericytoma (SFT/HPC) was divided into three histological grades, grade I was considered benign and treated by surgical resection alone, while tumors with grades II and III were considered malignant which received adjuvant radiotherapy. Meningiomas are divided into three histological grades, grade 1 which is benign is treated with sub total resection, while grade II (atypical) and grade III (anaplastic) in addition to subtotal resection, radiation therapy including radiosurgery and fractionated irradiation is also performed. Based on the above background, SFT/HPC and meningiomas have similar histologic features, but the therapeutic management is very different, therefore a more sensitive and specific examination is needed. In accordance with previous studies, STAT6 and SSTR2A have better

sensitivity and specificity. By using these immunohistochemical examinations we can confidently sort out the abnormality, an SFT/HPC or meningioma, in addition, it is hoped that therapeutic management will be better.

Objective: Investigate the differences between of STAT6 And SSTR2A expression in *solitary fibrous tumor/hemangiopericytoma* (SFT/HPC) with meningioma in RSUP dr. Kariadi Semarang.

Research Method: This is an analytic observational study with a cross-sectional design. Retrospective data analysis of 64 patients with SFT/HPC and meningioma cases (case groups) who had undergone surgery at Kariadi Hospital, samples were collected during January 2020 to December 2021. STAT6 and SSTR2A expression analysis is based on immunostaining. That was evaluated only in the neoplastic cells was classified quantitatively as follows : Zero score (staining in < 5% of the neoplastic cell). Score one (staining in 5% - 25% of the neoplastic cell). Score two (staining in 26% - 50% of the neoplastic cell). Score three (staining in 51% - 75% of the neoplastic cell). Score four (staining in 76% - 100% of the neoplastic cell). Staining intensity was evaluated semiquantitative as follows: 0 (negative), +1(weak), +2 (moderate) and +3 (strong). scoring is based on the proportion of positive tumor cells and the color intensity of the positive tumor cells. The distribution index score was assessed based on the percentage of tumor cells multiplied by the intensity of the stain. Scores less than 1 are considered negative, scores 1 – 6 are considered weakly positive and 6 to 12 are considered strong positive. *Mann Withney* was used to analyze the difference between STAT6 and SSTR2A expression in *solitary fibrous tumors/hemangioperisitoma* (SFT/HPC) with meningiomas.

THE CORRELATION OF LIGHT CHAIN 3B IMMUNOHISTOCHEMICAL EXPRESSION WITH HISTOPATHOLOGICAL GRADING OF COLORECTAL ADENOCARCINOMA

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Background: Colorectal cancer ranks third most in the world, and the second most common cause of death after lung cancer. Autophagy is related to cancer and other diseases and plays a dual role in tumorigenesis (tumor suppressor and tumor promoter). LC3B is a commonly used marker of autophagy and plays a role in autophagy in colorectal cancer. Elevated LC3 expression is positively correlated with long-term survival in patients with colorectal cancer, so it can be used as a prognostic marker of colorectal cancer.

Objectives: To analyze the correlation of Light Chain 3B immunohistochemical expression with histopathological grading of colorectal adenocarcinoma.

Methods: This study is an analytical study with a cross-sectional approach on 41 samples paraffin block with histopathological diagnosed as Colorectal Adenocarcinoma. Data about age, gender were obtained from medical records. Slides were made with routine staining of hematoxyllin eosin and immunohistochemistry LC3B. LC3B expressed on cytoplasm of tumor cells. Immunoreactive score is calculate by adding the score of staining intensity and the percentage score of positively stained cells. The data will processed and analyzed with the help of statistical software and the results will be presented in tabular form. The basic characteristics of the sample will be expressed in numbers and percentages. Data analysis will be carried out using the Spearman correlation test

Keywords: colorectal carcinoma, autophagy, LC3B

DIFFERENCES OF *HELICOBACTER SPP* IDENTIFICATION IN STOMACH BIOPSY USING IMMUNOHISTOCHEMISTRY COMPARED WITH MODIFIED GIEMSA

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Background: *Helicobacter spp*, especially *Helicobacter pylori* infection is still a big problem throughout the world. The prevalence of *Helicobacter pylori* infection in 2015 was 22.1% in Indonesia. Identification of *Helicobacter spp* on gastric biopsy at Kariadi Hospital was carried out by *Hematoxylin Eosin* (HE) and additional Modified Giemsa staining. Modified Giemsa are often used because of the easy availability and simple procedures, but false positives and false negatives can be found. The use of immunohistochemistry is expected to increase the accuracy of *Helicobacter spp* identification because it is more sensitive and specific when compared to the Modified Giemsa. Although PCR and FISH examinations are specific for *Helicobacter pylori*, in the era of health insurance, cost considerations are important in health services. Kariadi Hospital has the facilities and infrastructure to carry out immunohistochemistry methods, but anti-*Helicobacter* antibodies are still not routinely used.

Objective: This study would compare the immunohistochemistry method with modified Giemsa staining on gastric biopsy for the identification of *Helicobacter spp* at Kariadi Hospital.

Methods: This cross-sectional study will use total 64 samples of paraffin blocks (32 *Helicobacter spp* positive and 32 *Helicobacter spp* negative, based on Anatomical Pathology report from modified Giemsa/*Kwick Diff* staining) from patients who underwent endoscopic stomach biopsy at Kariadi Hospital with indications of upper gastrointestinal complaints during January 1, 2020 to December 31, 2020. Those samples will be stained using anti-*Helicobacter* mouse monoclonal antibody (Biocare). The difference between the result of modified Giemsa and immunohistochemistry will be analyzed using the Chi square or Fisher test.

Keywords: *Helicobacter spp*, chronic gastritis, Giemsa modification, anti-*Helicobacter* immunohistochemistry

THE CORRELATION OF IMMUNOHISTOCHEMICAL KI67 EXPRESSION WITH PERITUMORAL BUDDING INDEX IN CERVICAL SQUAMOUS CELL CARCINOMA NOS COMPARED TO ADENOCARCINOMA NOS

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Background: Squamous cell carcinoma of cervix (SCC) NOS is an invasive epithelial tumor composed of neoplastic cells with varying degrees of squamous differentiation, while adenocarcinoma cervix is a malignant epithelial cervix tumor with glandular or ductal adenocarcinomatous differentiation. One of them would have no immunohistochemical staining for p16. Tumor buds are single cells or small groups (≤ 5 buds) of other tumor cells. Malignancy rate of these two neoplasms was assessed by using the Ki67 proliferation index and would be compared afterwards to the peritumoral budding index in both cases.

Aim: To analyze the correlation between Ki67 expression and peritumoral budding index compared to squamous cell carcinoma cervical NOS cases.

Materials and Methods: immunohistochemical assessment of cases of cervical SCC NOS include positive for Ki67 if nuclei is stained in the superficial and intermediate layer, negative for Ki67 if tumours is stained in the basal and parabasal layers, immunohistochemistry assessment of Ki67 in adenocarcinoma cervix NOS included positive if nuclei is stained $>10\%$ and negative if nuclei is stained $<10\%$. Assessment of peritumoral budding, LG <5 buds and HG >5 buds.

Keywords: SCC cervix NOS, adenocarcinoma cervix NOS, peritumoral budding, KI67.

IMMUNOHISTOCHEMICAL EXPRESSION GATA3 BASED ON SUBTYPE OVARIAN CARCINOMA IN GENERAL HOSPITAL H. ADAM MALIK MEDAN IN 2019-2021

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Background: Ovarian cancer is divided into cancer originating from: 1). surface epithelium of the ovaries and fallopian tubes, 2). sex cord-stromal tumors, and 3). germ cell tumors, each of these tumors forming a different picture. The incidence of ovarian cancer in Indonesia in 2020 ranks 10th, with 14,896 new cases and 9,581 deaths from ovarian cancer. *GATA* binding protein, especially *GATA3* plays an important role in triggering ovarian carcinoma.

Objective: This study is aimed to analyze *GATA3* immunohistochemical staining expressed in nuclei of ovarium tumor tissue.

Methods: This study is deskriptif, which enrolled 44 slides, and assessed by accounting *GATA3* immunohistochemical staining expressed in nuclei of ovarium tumor tissue.

Keywords: Ovarian carcinoma, ovarian tumor, *GATA3*.

THE RELATIONSHIPS OF STROMAL TUMOR INFILTRATING LYMPHOCYTES (sTILs) WITH GRADING HISTOPATHOLOGY ON SQUAMOUS CELL CARCINOMA OF PENILE

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Background: Squamous cell carcinoma of penile is the most malignant tumor origin from penile and most commonly found in developing countries. Stromal tumor infiltrating lymphocytes (sTILs) is an important component of the tumor immune microenvironment (TIME) which has a close relationship with antitumor immune response and prognosis.

Objective: This study aims to analyze the relationships of stromal infiltrating lymphocytes (sTILs) with grading histopathology on squamous cell carcinoma of penile.

Methods: This is an analitical study which uses 32 slides, and assessed by Hematoxylin and Eosin staining.

Keywords: Penile carcinoma, squamous cell carcinoma, penile cancer.

THE ASSOCIATION OF HER2 AND CD44 IMMUNOEXPRESSION WITH HISTOPATHOLOGICAL GRADING AND CLINICAL STADIUM IN MUCOEPIDERMOID CARCINOMA OF SALIVARY GLAND

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Background: Mucoepidermoid carcinoma (MEC) is the most common salivary gland malignancy in Indonesia. Histological grading and clinical stadium of MEC are important to predict prognosis and treatment. High grade and high clinical stadium of MEC related to unsatisfactory treatment, recurrence, and distant metastasis that cause low overall survival (OS). One of pathogenesis of MEC is alteration of Human Epidermal Receptor 2 (HER2) pathway. HER2 amplification and aberration correlated with cancer stem cells (CSC) pathway in breast and gastric cancer. CSC pathway is represented by overexpression of Cluster of Differentiation 44 (CD44). HER2 pathway aberration followed by CD44 overexpression related to low OS. **Objective:** To evaluate the association of HER2 and CD44 expression with histopathological grading and clinical stadium of MEC.

Methods: This is a cross-sectional study collected a minimum of sixty cases diagnosed with salivary gland MEC in Anatomical Pathology Department, Faculty of Medicine Universitas Padjadjaran, Bandung, Indonesia period 2017 to 2021. Histological grading of salivary gland MEC are low, intermediate, and high grades. The clinical stage is grouped into low stage (I-II) and high stage (III-IV). HER2 and CD44 expressions will be evaluated by immunohistochemistry staining. HER2 expression is classified into weak and strong expressions from membrane staining. CD44 expression is divided into weak and strong expressions from membrane staining.

Keywords: Mucoepidermoid carcinoma, salivary gland, histopathological grading, clinical stage, HER2, CD44

THE RELATIONSHIP BETWEEN REACTIVE STROMAL EXPRESSION USING TRICHROME MASSON WITH GLEASON SCORE HISTOPATHOLOGICAL GRADING IN ADENOCARCINOMA PROSTATE AT HAJI ADAM MALIK MEDAN HOSPITAL

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Background: Prostate disorders are one of the leading causes of health problems in men worldwide. This disease ranks second most often in men after respiratory disorders. Adenocarcinoma prostate is an invasive carcinoma, consisting of neoplastic prostatic epithelial cells with differentiation and secretion arranged in various histomorphological patterns. The histopathological classification proposed by Gleason is used to determine the prognosis of patients with adenocarcinoma prostate. Stroma in cases of adenocarcinoma prostate is associated with prognostic factors and gleason scores, where correlations are shown in progression and metastasis, and may contribute to a novel prognostic feature approach.

Objective: To analyze the relationship between reactive stromal expression using trichrome masson with histopathological grading Gleason score in adenocarcinoma prostate.

Material and Method: This analytic study with cross-sectional study from the block and slide of adenocarcinoma prostate patients who had their histopathology. Data about age and PSA score were obtained from medical record. After that, the researchers determined whether there was a relationship between reactive stromal expression using trichrome masson and Gleason scores. The results of data analysis are presented in the table. The statistical test used in this study is Chi Square.

Keywords: Adenocarcinoma prostate, reactive stromal, trichrome masson, Gleason scores.

THE ACCURACY OF CYTOLOGICAL EXAMINATION OF FINE NEEDLE ASPIRATION IN PAPILLARY THYROID CARCINOMA IN HOSPITAL CENTER GENERAL HAJI ADAM MALIK, MEDAN.

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Background: Thyroid nodule is a disorder of the thyroid gland. These nodules consist of colloid nodules, cysts, and thyroiditis are found in about 80% of cases, whereas benign follicular neoplasms and thyroid carcinomas occur in about 10%-15% & 5% of cases, respectively. Papillary Thyroid Carcinoma (PTC) is an epithelial malignancy that exhibits follicular cell differentiation and has a number of specific nuclear. The most common thyroid carcinoma is PTC, with an incidence rate of about 80% of all thyroid carcinomas. Distinguishing preoperative benign lesions is very important to prevent unnecessary surgery, therefore fine needle aspiration cytology biopsy (Si-BAJaH) is needed, easy to perform, accurate diagnosis & cheaper cost, so this examination is the first line in evaluating thyroid lesions. preoperative.

Objective: to assess the accuracy of Si-BAJaH examination compared to histopathological examination in diagnosing PTC.

Methods: This is a diagnostic test study with a cross sectional approach. The population of this study consisted of secondary data, namely patients with thyroid nodules diagnosed with PTC and non-PTC who were examined by Si-BAJaH & histopathology at the Anatomical Pathology Unit of RSUP. H. Adam Malik, Medan. The results will be presented in the form of 2x2 tabulation.

Keywords: PTC, non PTC, Si-BAJAH, table 2x2

QUANTITATIVE HISTOMORPHOMETRY ANALYSIS FOR DISTINGUISHING B-CELL NON-HODGKIN'S MALIGNANT LYMPHOMA, FROM UNDIFFERENTIATED CARCINOMA

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Background: Non-Hodgkin's Malignant Lymphoma (NHML) and Undifferentiated Carcinoma (UC) are challenging to differentiate in routine Hematoxylin and Eosin (HE). Sometimes, the final diagnosis needs additional methods to be performed. Immunohistochemistry (IHC) is one of the most common procedure that can be used to diagnose, but in Indonesia this method is not available in every pathology lab. Therefore, peripheral pathologists refer the cases to an advanced lab for IHC procedure, yet select the optimum panel. There is a new potential tool that can be used by the rural pathologist to evaluate histomorphological parameters related to its characteristic microscopic features. Quantitative Histomorphometry (QH) is a computer-aided microscopic image analysis of histopathological features that could be a screening test for optimizing panel selection.

Objective: To evaluate multiple histopathological features from HE slides, to determine the cut-off values, and to assess the accuracy, sensitivity, and specificity of QH distinguishing NHML from UC.

Methods: The study was designed as an analytic experimental study analyzing HE and QH microscopic features. The inclusion criteria are cases that were confirmed as NHML and UC by IHC. Minimal 60 cases will collect, then 10-20 images from each case will acquire with a trinocular microscope-mounted camera based on relevant 400x magnification field-of-views. Whole image features, nuclei features, and cytoplasmic features are automatically segmented and extracted. Correlated features are ranked and insignificant features will be removed from further logistic regression statistical analysis. The model predicts accuracy, sensitivity, and specificity.

Keywords: Digital Pathology, Non-Hodgkin Malignant Lymphoma, Quantitative Histomorphometry, Undifferentiated Carcinoma

IMMUNOHISTOCHEMICAL EXPRESSION RELATIONSHIP MATRIX METALLOPROTEINASE-9 (MMP-9) WITH CLINICOPATHOLOGICAL CHARACTERISTICS IN COLORECTAL ADENOCARCINOMA NOT OTHERWISE SPECIFIED (NOS)

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Background

Colorectal carcinoma is one of the most feared malignancies in the world and is one of the leading causes of cancer-related deaths.¹ Data from the 2020 Global Burden of Cancer (GLOBOCAN) show that colorectal carcinoma is the third most common cancer in the world with an estimated 1,931,590 new cases (10%) and 935,173 deaths (9.4%). The data also show that colorectal carcinoma is the third most common after lung and prostate cancer in men and the second most common in women after breast cancer. In the United States and the Caribbean, colorectal carcinoma is the third most common after prostate and breast cancer, while in Asia, colorectal carcinoma is the third most common after breast and lung cancer.²

One of the components of the extracellular matrix that is interesting to talk about is Matrix Metalloproteinase-9 (MMP-9). MMP-9 is an endopeptidase that has a proteolytic effect and plays a role in the degradation of the extracellular matrix, and is secreted by various cells such as tumor cells, inflammatory cells, and fibroblasts. MMP-9 is a potential tumor marker that plays an important role in degrading type IV collagen, laminin and proteoglycans which are the main components of the basement membrane so that they play a role in the process of adhesion, migration, invasion, and metastasis of tumor cells. general indication of failure to suppress the metastatic process. This is a consideration for clinicians in an effort to improve the final outcome of patients with colorectal carcinoma.^{3,4}

Objective

From the description on the previous background, the researchers wanted to know how the distribution and relationship of the expression of Matrix Metalloproteinase-9 (MMP-9) with clinicopathological characteristics based on histopathological grading, tumor budding, Stromal Tumor Infiltrating Lymphocytes (Stromal TILs), Perineural Invasion (PNI), Lymphovascular Invasion (LVI), lymph node involvement, depth of tumor invasion, and presence or absence of tumor metastases. The data obtained are expected to be a prognostic factor in colorectal adenocarcinoma NOS and can be considered as additional immunohistochemical features that assist clinicians in planning management strategies.

Research Method

This research is a type of analytical research with a cross sectional approach. This research was conducted at the Anatomic Pathology Unit H. Adam Malik Hospital at Jalan Bunga Lau No. 17 Medan. This study was conducted from April 2020 to September 2021. The population in this study was based on secondary data from the medical records of patients diagnosed histopathology as adenosquamous colorectal carcinoma NOS in the Anatomic Pathology Unit of the H. Adam Malik Hospital Medan.

The sample was selected using consecutive sampling technique. Based on the sample count formula, sample size of 30 samples was obtained. Representative slides or blocks of paraffin diagnosed adenosquamous colorectal carcinoma NOS that met the inclusion and exclusion criteria. The inclusion criteria in this study were adequate clinical data on medical records including age, tumor location, sex, clinical stage representative paraffin block or slide preparation, derived from the results of extensive tissue excision and colectomy diagnosed histopathology as adenosquamous colorectal carcinoma NOS with H&E coloring. Review slide to assess the number of peritumoral budding tumors by the researcher and supervisor, namely 2 anatomic pathologists. Then performed an assessment of the expression of MMP-9 and how it relates to the clinicopathological characteristics of colorectal adenocarcinoma NOS.

Colorectal carcinoma is a malignant epithelial tumor originating from the large intestine (colon and rectum) that shows glandular and mucin differentiation, accompanied by invasion between the stroma of the muscularis mucosal layer to the submucosal layer. Matrix Metalloproteinase-9 expression is an immunohistochemical assessment of MMP-9 protein using BZ-0898450-AP Rabbit Anti MMP-9 Polyclonal Antibody at a dilution of 1:100 (40 C, overnight) from the manufacturer Bioenzy. MMP-9 is produced by tumor cells and cells around the tumor environment so that its activity and production are strongly influenced by the interaction of these components. MMP-9 expression was assessed semi-quantitatively using an Olympus CX21 binocular light microscope with an 18 mm eyepiece and the assessment was made based on the 'Quick Score', namely $Q = P \times I$, where P was the percentage of cells that were stained positive and I was the staining intensity. The immunohistochemical expression of MMP-9 was assessed in the cytoplasm of tumor cells and cells in the stroma.^{5,6} Assessment of the percentage of cells that are stained positively is done by looking in 10 (ten) large fields of view (100 X magnification) and taking the average number of those ten large fields of view. To see the intensity of staining on positively stained cells using a strong magnification of 400 times. The assessment is calculated based on the score of the proportion of the area and the score of the intensity: ⁴

- The score for the proportion of the area of the colored cells is divided into:
 - 0 = negative
 - 1 = < 25%
 - 2 = 25 % - 50 %
 - 3 = >50%
- The coloring intensity score is divided into :⁸⁷
 - 0 = uncolored
 - 1+ = weakly colored
 - 2+ = moderately colored
 - 3+ = strongly colored
- The final result by multiplying the area proportion score and the intensity score, and interpreted to be :⁵
 - Weak expression : if the total value is 0-5
 - Strong expression : if the total value is ≥ 6

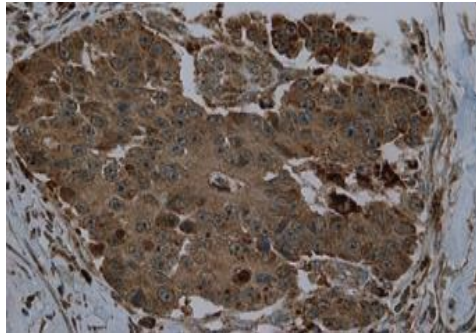


Figure 3.2 Positive MMP-9 expression in colon cancer tissue.⁶

The data that has been obtained will be tabulated and statistical analysis is carried out to determine the characteristics of the sample and evaluate the assessment of peritumoral tumor budding in the sample.

THE RELATIONSHIP BETWEEN CD30, NS3, AND EBER EXPRESSION AS PROGNOSIS FACTORS IN PATIENTS WITH NON-HODGKIN'S T-CELL LYMPHOMA

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Background: NHL is one of the leading causes of cancer around the world. 215 NHL patients, including T cell NHL, have been diagnosed in Indonesia, particularly at RSUP Sarjito, over a 4.5-year period. In a recent study, CD30 has an important role in therapy and prognosis. Positive CD30 expression has a better prognosis than the negative one. HCV and EBER infection have role in the occurrence of T cell NHL, so further research is needed on the relationship between the three.

Objective: The purpose of this study is to examine the relationship between CD30 expression in T cell Non Hodgkin Lymphoma cases with various clinicopathological parameters, determine the relationship between CD30 expression and Epstein Barr virus infection in T cell Non Hodgkin Lymphoma patients, and determine the relationship between CD30 expression and Hepatitis C infection in T cell Non Hodgkin's lymphoma patients.

Method: Data and Fixed Formalin Paraffin Embedded (FFPE) samples of NHL T-cell (from 2016-2021) were collected from Sardjito General Hospital Yogyakarta, and 30 samples were chosen for the study after meeting the criteria. The FFPE was stained with CD30, NS3, and EBER immunohistochemistry and read by two pathologists. The correlation between NHL Tcell, Hepatitis C virus, and Epstein-Barr virus will be analyzed statistically using fisher exact test and multivariat logistic regretion.

Keywords: T-cell Non-Hodgkin's Lymphoma, CD30, HCV, EBER

TUMOR LOCATION AND SIZE IN LUNG ADENOCARCINOMA PATIENTS AND THEIR CORRELATION WITH EGFR MUTATION STATUS

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Background: Lung cancer is one of the most common malignancies in Indonesia with the highest mortality rate. Among all the lung cancers, adenocarcinoma is the most common type to be diagnosed. Lung adenocarcinoma can appear in different areas of the lung and be present in different sizes. Numerous studies have looked at the propensities of non-small cell lung cancer in terms of tumor size and location, as well as their relationships to different genetic mutations. One of those mutations is the *EGFR* mutation, which is very common in certain lung cancers and is currently being used in treatment strategies. However, similar studies that are specific to adenocarcinoma are still relatively infrequent. Therefore, the opportunity remains for researches to investigate the correlation between these tumor profiles and the driver mutation in lung adenocarcinoma.

Objective: This cross-sectional study is to assess the tumor location and size in lung adenocarcinoma patients, and their correlation with the *EGFR* mutation status.

Methods: Consecutive samples were taken from patients diagnosed with adenocarcinoma of the lung using trans-thoracic needle aspiration biopsy at Dr. Sardjito General Hospital in 2018–2022. Samples with an adequate number of cells are further tested for *EGFR* mutations using PCR. Mutations in exons 18, 19, 20, and 21 are then recorded. Information about the tumor locations and sizes for each patient is acquired using an MSCT examination during the TTNA biopsy. The data regarding tumor sizes is then semi-quantitatively categorized based on the eighth edition of TNM staging for lung cancer. For data analysis, the Chi Square is applied.

Keywords: EGFR, mutation, adenocarcinoma, lung

HISTOMORPHOLOGY OF INVASIVE CERVICAL ADENOCARCINOMA IN ANATOMIC PATHOLOGY UNIT OF ADAM MALIK HOSPITAL MEDAN 2019-2021 ACCORDING TO WHO CLASSIFICATION 2020

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Background: Cervical cancer is an abnormal growth of cells that can invade other organs originating from the cervix. Based on data from the Global Cancer Observatory (GLOBOCAN), it is known that in 2020 there will be 604,000 new cases and 342,000 deaths due to cervical cancer worldwide. Whereas adenocarcinoma accounts for 10-25% of all cervical cancer cases. The new classification recognizes this by separating HPV-associated and HPV-independent adenocarcinomas, dividing the latter into specific gastric, clear cell, mesonephric, and endometrioid types. Tumor cell invasion into blood and lymphatic vessels, known as lymphovascular invasion (LVI) is a very important prognostic factor, especially in all types and types of cervical cancer. LVI is also a predictor factor for cervical cancer patients who have received therapy. Histopathological Tumour infiltrating lymphocytes (TILs) measurements were carried out to see immunological reactions to tumor, where the improvement in prognosis in various types of cancer could affect the stage and grading.

Objective: To know how the histomorphology of cervical adenocarcinoma in Anatomical Pathology Unit of Haji Adam Malik General Hospital Medan in 2019-2021 according to WHO classification 2020

Material and Method: This descriptive study with cross-sectional study from the block and slide of cervical adenocarcinoma patients who had their histopathology. Data about age and parity were obtained from medical record. After that, the researcher wanted to know how the histomorphology of invasive cervical adenocarcinoma according to the WHO 2020 classification. The results of data analysis are presented in the table.

Keywords: Adenocarcinoma cervix, histomorphology, LVI, TILs.

COMPARISON TUMOUR-INFILTRATING LYMPHOCYTES (TILs) INTRATUMORAL AND STROMAL ON MUCINOUS OVARIUM TUMOUR SUBTYPE IN H. ADAM MALIK GENERAL HOSPITAL, MEDAN

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BACKGROUND

Ovarian cancer is the second most common gynecological malignancy of death. According to the Global Cancer Observatory (GLOBOCAN) Data in 2020, ovarian malignancy ranks ninth with 313,959 new cases (1.6%) and ranks fourteenth in the world with 207,252 (2.1%) due to ovarian cancer. In Indonesia, ovarian malignancy is ranked tenth. The number of new cases was 14,896 (3.8%) and 5 years of prevalence with 37,533 cases with a proportion of 27.64 per 100,000 and ranked seventh in the cause of death in Indonesia with a total of 9,581 (4.1%). About 12% of mucinous ovarian cancer is an ovarian malignancy. However, the latest estimates show a decrease in the incidence rate by about 3%. The two main reasons for this decrease in incidence are the identification criterion, which separates benign mucin tumors from invasive mucin carcinoma and the better introduction of the clinical and pathological picture to distinguish between primary mucin carcinoma and metastasis of ovarian carcinoma.

Tumour infiltrating lymphocytes (TILs) are found in ovarian cancer and can be prognostic to improve the survival of patients. The development of tumor-reactive TILs mobilizing for success in ovarian cancer therapy is now a high priority. Despite the compelling reasons, efforts for T cell transfer administration of adoption, immune-enhancing antibodies, and environmental conditioning of tumor immunity in ovarian cancer have been minimal with some positive results reported in patients. Since there are currently no recommendations for ovarian cancer screening, most ovarian cancer treatment efforts are more focused on the discovery of new therapies than preventive measures.

OBJECTIVE

Based on the background explained, the study aims to knowing comparison tumourinfiltrating lymphocytes (TILs) intratumoral and stromal on mucinous ovary tumour subtype in H. Adam Malik General Hospital in Medan.

RESEARCH METHOD

Intratumoral and stromal assessment of TILs will refer to the International TILs Working

Group 2014 with descriptive analytics study, the sample is only observed once and at a time. The population of this study was all ovarian mucinous tumour patients diagnosed histopathologically in the Anatomic Pathology Unit of Haji Adam Malik Hospital, Medan. The sample of this study was a paraffin block and slide from an operating tissue diagnosed with ovarian mucinous tumour histopathologically, meeting the inclusion criteria in the Anatomical

Pathology Unit of Haji Adam Malik Hospital Medan. Sampling is carried out using a consecutive sampling technique.

CORRELATION BETWEEN REGULATORY T-CELLS AND TUMOR INFILTRATING LYMPHOCYTES IN BASAL CELL CARCINOMA

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Background: Basal cell carcinoma (BCC) is the most common skin malignancy worldwide. This neoplasm has low mortality, but has high morbidity and recurrence rate. The patient prognosis and and recurrence are influenced by tumor infiltrating lymphocytes (TILs). TILs is a group of lymphocytes that surround tumor cells and performs a variety of functions. One part of TILs is regulatory T cells (Tregs), which are a subpopulation of T lymphocytes that control the balance between immune activation and tolerance, involved in tumor development and progression. Good understanding of the role of Tregs and TILs may support the development of prognostic tools or alternative targets for immunotherapy.

Objective: The present research aims to analyze the correlation between Tregs and TILs in basal cell carcinoma. The research also aims to compare the proportion of Tregs among normal skin, tumor margins, and tumor center.

Methods: Formalin fixed paraffin embedded (FFPE) samples of BCC (from 2016 to 2021) and their associated clinical data will be retrieved from Dr. Sardjito Hospital Yogyakarta. The expression of TILs (CD3+) and Tregs (FOXP3) will be identified using immunohistochemical techniques. The correlation between Tregs and TILs in BCC and the difference in Tregs proportion among normal skin, tumour margins, and tumor center will be analyzed statistically using Pearson's correlation and one way Anova method, respectively.

Keywords: Basal cell carcinoma, tumor infiltrating lymphocytes (TILs), regulatory T cells (Tregs)

ANALYSIS OF ANEXELEKTO (AXL) IMMUNOEXPRESSION AND TELOMERASE REVERSE TRANSCRIPTASE (TERT) PROMOTER MUTATION AS PREDICTING FACTORS OF RADIOACTIVE IODINE-REFRACTORY DIFFERENTIATED THYROID CARCINOMA

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Background: Differentiated thyroid carcinoma accounts for approximately 90% of all thyroid cancers. In this group is papillary thyroid carcinoma (PTC), follicular thyroid carcinoma (FTC), Hurthle cell carcinoma (HCC), and poorly differentiated thyroid carcinoma. Initial therapy with thyroidectomy and followed by radioactive iodine (RAI) therapy. Approximately 20-30% of patients have recurrence/persistent and/or metastases disease. Two-thirds of patients relapse due to RAI-refractory. Anexelekto (AXL) is a receptor tyrosine kinase that induces cell proliferation and survival. Telomerase reverse transcriptase (TERT) is a catalytic component of the ribonucleoprotein enzyme to maintain telomere so that prevents chromosomal fusion. Mutations in the *TERT* promoter region can predict RAI-refractory.

Objective: This study aims to determine the role of AXL and *TERT* promoter mutation in early prediction of RAI-refractory so that can adjust subsequent therapy individually and avoid unnecessary RAI therapy.

Methods: This is case control study in 90 patients who had been diagnosed as differentiated thyroid carcinoma and had undergone RAI therapy at Dr. Hasan Sadikin Bandung period 2016-2021. AXL expression was assessed by immunohistochemical examination which was grouped into negative/low and high expression. Assessment of the *TERT* promoter mutation using Sanger sequencing. The two most common point mutations are C228T and C250T.

Keywords: differentiated thyroid carcinoma, radioactive iodine-refractory, anexelekto, *TERT* promoter

TUMOR-INFILTRATING LYMPHOCYTE VOLUME (TILV) RELATIONSHIP WITH GRADING HISTOPATHOLOGY IN INVASIVE BREAST CARCINOMA OF NO SPECIAL TYPE

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Background: *Invasive breast carcinoma no special type (IBC-NST) is a heterogeneous group of IBC-NST and cannot be classified morphologically as one of the histological images of the special type.* The incidence of breast cancer in Indonesia in 2020 rank 1st for number of new cases in female. Recent studies have revealed Assessment Tumor-infiltrating lymphocyte (Tils) has not reflected the immune response fully because it is not aimed at the percentage of tumor stroma as a whole. Fard et al & Zhang et al (2019) presented a recent study on Invasive breast carcinoma using Tumor-infiltrating lymphocyte volume (TILV) and using only Hematoxylin & Eosin staining.

Objective: Tumor-infiltrating lymphocyte volume (TILV) is used to Assess the immune capacity of tumors as a better prognostic predictor of Tumor-infiltrating lymphocytes (Tils) using only cheap and easy-to-obtain routine staining.

Methods: this study is Descriptive analysis, which recorded 36 slides, and in value using cheap and easily available coloring i.e. Hematoxylin & Eosin

Keywords: *Invasive breast carcinoma no special type, TILV*

PROGNOSTIC SIGNIFICANCE OF TUMOR INFILTRATING LYMPHOCYTES IN NASOPHARYNGEAL CARCINOMA PATIENTS

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Background: Nasopharyngeal carcinoma (NPC) is an endemic carcinoma in Southeast Asia with a high rate of local invasion and locoregional lymphatic metastasis. One of the most striking and consistent characteristics of NPC is the presence of a very abundant lymphocyte infiltrate. The prognostic significance of tumor-infiltrating lymphocytes (TILs) has been studied recently in many cancers. Data from many studies addressing various types of cancers have shown that the presence of higher quantities of TILs are associated with significantly better prognosis, but the prognostic value of tumor-infiltrating lymphocytes (TILs) in NPC remains controversial. So, further well-designed study are needed to confirm the prognostic value of TILs in NPC.

Objective: The aim of the study was to evaluate the prognostic value of TILs in patients with NPC that accessing treatment at Sardjito Hospital, Yogyakarta, Indonesia.

Methods: Retrospective cohort study reviewed the records and pathological sections of 77 patients with NPC who underwent treatment at Sardjito Hospital from 2015 to 2019. TILs were analyzed using hematoxylin and eosin stained slides according to the criteria of the International ImmunoOncology Biomarker Working Group and read by two pathologist. TILs were evaluated separately in stromal and tumor compartments. The log-rank test and univariable and multivariable analyses were used to compare overall survival (OS) in patients with tumors with different TILs level.

Keywords: Nasopharyngeal carcinoma, tumor infiltrating lymphocytes, prognostic, survival

