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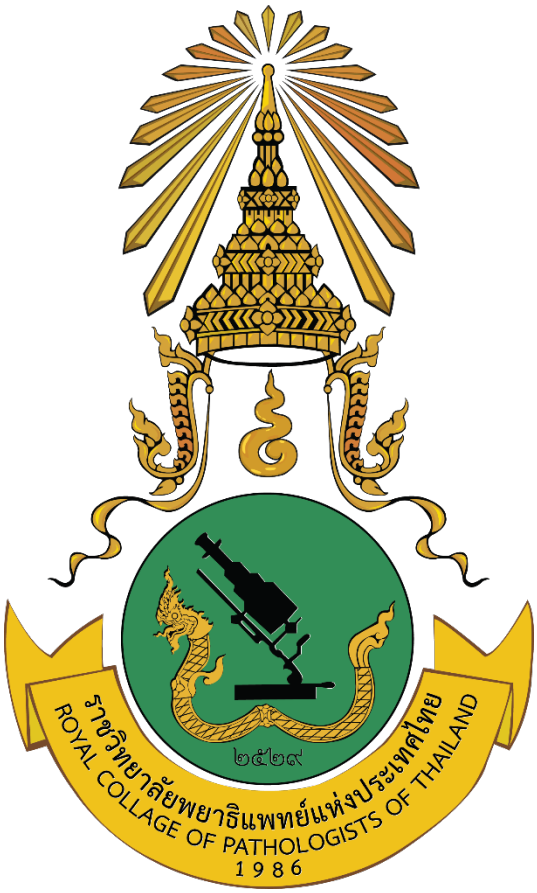
THE OFFICIAL JOURNAL OF THE ROYAL COLLEGE OF PATHOLOGISTS OF THAILAND



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ABOUT THE JOURNAL

Aims and Scope

Asian Archives of Pathology (AAP) is an open access, peer-reviewed journal. The journal was first published in 2002 under the Thai name "วารสารราชวิทยาลัยพยาธิแพทย์แห่งประเทศไทย" and English name "Journal of the Royal College of Pathologists of Thailand". The journal is a publication for workers in all disciplines of pathology and forensic medicine. In the first 3 years (volumes), the journal was published every 4 months. Until 2005, the journal has changed its name to be "Asian Archives of Pathology: The Official Journal of the Royal College of Pathologists of Thailand", published quarterly to expand the collaboration among people in the fields of pathology and forensic medicine in the Asia-Pacific regions and the Western countries.

The full articles of the journal are appeared in either Thai or English. However, the abstracts of all Thai articles are published in both Thai and English languages. The journal features letters to the editor, original articles, review articles, case reports, case illustrations, and technical notes. Diagnostic and research areas covered consist of (1) **Anatomical Pathology** (including cellular pathology, cytopathology, haematopathology, histopathology, immunopathology, and surgical pathology); (2) **Clinical Pathology (Laboratory Medicine)** [including blood banking and transfusion medicine, clinical chemistry (chemical pathology or clinical biochemistry), clinical immunology, clinical microbiology, clinical toxicology, cytogenetics, parasitology, and point-of-care testing]; (3) **Forensic Medicine (Legal Medicine or Medical Jurisprudence)** (including forensic science and forensic pathology); (4) **Molecular Medicine** (including molecular genetics, molecular oncology, and molecular pathology); (5) **Pathobiology**; and (6) **Pathophysiology**.

All issues of our journal have been printed in hard copy since the beginning. Around the late 2014, we developed our website (www.asianarchpath.com) in order to increase our visibility. We would like to acknowledge that our journal has been sponsored by the Royal College of Pathologists of Thailand. We have the policy to disseminate the verified scientific knowledge to the public on a non-profit basis. Hence, we have not charged the authors whose manuscripts have been submitted or accepted for publication in our journal.

On the other hand, if any authors request a printed copy of the journal issue containing the articles, each of the copied journals costs 450 bahts for Thai authors and 30 United States dollars (USD) for international authors.

Publication Frequency

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Abstract

[AP-03] Expanding the spectrum of USP6 fusion partners in aneurysmal bone cysts: an updated molecular perspective

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Background

Aneurysmal bone cysts (ABCs) are part of a heterogeneous group of reactive and neoplastic giant cell-rich bone lesions. Accurate diagnosis relies not only on morphology but also on clinical context and molecular analysis. A key diagnostic marker is the presence of USP6 gene rearrangements, found in approximately 70% of ABCs.

Objective

This study aims to identify and report previously unrecognized and rare USP6 fusion partners, contributing to improved diagnostic accuracy and a better understanding of USP6-associated tumor biology.

Materials and methods

We conducted a retrospective, non-randomized analysis of 14 patients diagnosed with ABCs between 2014 and 2025 at Motol University Hospital in Prague. Each case was evaluated using histopathology, immunohistochemistry, and Anchored Multiplex RNA-based sequencing to detect USP6 rearrangements. Clinical and demographic data were also reviewed.

Results

Among the 14 cases, we identified four novel USP6 fusion partners (ZFX, IP6K2, DDX6, MORF4L1), six rare ones (MEF2A, EIF1, COL1A2, RUNX2, PAFAH1B1, FAT1), and two common partners (CDH11, OMD).

Conclusion

Molecular testing is essential for the accurate classification of ABCs. Many of the identified USP6 fusion partners are associated with tissue repair, potentially explaining links to trauma and spontaneous lesion resolution. Further investigation into these mechanisms is warranted.

Abstract

[AP-04] A strange hip fracture - metastatic follicular dendritic cell sarcoma

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Introduction

Follicular dendritic cell sarcoma (FDCS) is a rare neoplasm that can arise in nodal and extranodal sites, often posing diagnostic and therapeutic challenges due to its varied morphology and limited molecular targets.

Case Presentation

We report a case of a 67-year-old Chinese male who presented with a pathological fracture of the right hip, revealing an underlying lytic lesion suspicious for metastasis. Imaging subsequently identified a posterior mediastinal mass initially presumed to be a foregut duplication cyst. Histopathological examination of both lesions confirmed the diagnosis of FDCS, with the mediastinal mass likely representing the primary tumour and the femoral lesion a metastasis. Molecular testing revealed no common actionable mutations, and although panTRK immunohistochemistry was positive, no NTRK fusion was identified. The patient underwent intramedullary fixation, radiotherapy, and was eventually placed on palliative care following disease progression.

Discussion and Conclusion

This case highlights the diagnostic complexity of FDCS, its potential for distant metastasis, the limitations of current treatment strategies, and advocates for continued molecular investigations to uncover therapeutic targets for advanced disease.

Abstract

[AP-05] Histopathologic, immunohistochemical and site-based spectrum of rhabdomyosarcoma in pediatric and young adult patients: a retrospective study from coastal india

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Background

Rhabdomyosarcoma (RMS) is the most common soft tissue sarcoma in children and young adults, arising in varied anatomic locations with diverse clinical and morphologic features. Histopathologic overlap with other small round cell tumors poses diagnostic challenges. Immunohistochemistry (IHC) and imaging are vital adjuncts in diagnosis and treatment planning.

Objectives

To evaluate the histopathologic subtypes, immunohistochemical profile, and anatomic site distribution of RMS in patients aged ≤20 years.

Materials and Methods

Twelve biopsy-confirmed RMS cases diagnosed over 10 years were reviewed. Clinical data, tumor site, radiologic findings, histopathologic subtype, and IHC markers were analyzed.

Results

The cohort had a mean age of 13.5 years (range: 1–20) with a male-to-female ratio of 1.6:1. Tumor sites included various locations in the head and neck region, genitourinary tract, and axial and appendicular skeleton. Embryonal RMS (8/12) was most common. Desmin and Myogenin were positive in 8/12 cases.

Conclusion

Understanding site-specific patterns and IHC expression enhances diagnostic accuracy. Strong diffuse Myogenin expression indicates poor prognosis. Integration of radiology, histology, and IHC is essential for precise classification and risk-adapted therapy. Sites with favorable prognosis include orbit, non-parameningeal head and neck region, and genital tract excluding prostate, whereas sites with unfavorable prognosis include urinary bladder, prostate, and extremities.

Abstract

[AP-09] Presacral teratoma in an adult female: an extremely rare case report and literature review

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Introduction

Presacral teratomas are exceptionally rare, particularly in adults. Although sacrococcygeal teratomas account for approximately 4% of all primary teratomas, the precise incidence of presacral involvement remains undefined. Owing to their deep anatomic location and diverse histological features, these tumors pose a significant challenge to both clinical detection and pathological diagnosis.

Case presentation

A 28-year-old female presented with increasing sacrococcygeal pain and constipation. Ultrasound revealed a presacral hypoechoic nodule, which had cystic and calcified areas; neither invasion nor adhesion was observed. Macroscopic examination showed a 90x75x60 mm well-circumscribed mass with yellow solid areas, a sebum-filled cavity, fibrosclerotic foci, and a firm whitish area suggestive of cartilage. Microscopically, the tumor contained well-differentiated derivatives from all three germ cell layers (squamous epithelium, sebaceous glands, sweat glands, hair follicles, cartilage, and respiratory epithelium). Colorectal and gynecologic tumors were excluded from the differential diagnosis. Extensive sampling and mapping of the specimen were performed to thoroughly exclude any malignant or immature elements. The patient subsequently underwent complete surgical excision. A six-month follow-up revealed no evidence of recurrence and a stable postoperative course.

Discussion and conclusion

Mature presacral teratoma is an extremely rare form of teratoma occurring in adults. Despite its heterogeneity, the lesion demonstrates no invasion on imaging. Histopathological examination remains the diagnostic gold standard, and complete surgical excision is considered the treatment of choice.

Abstract

[AP-15] Benign nevus cell inclusions in axillary lymph nodes: a potential diagnostic pitfall in breast cancer staging

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Introduction

Benign melanocytic inclusions (nodal nevi) in axillary lymph nodes are uncommon but may closely mimic metastatic carcinoma or melanoma in sentinel lymph node biopsies for breast cancer. Misinterpretation of these inclusions can result in incorrect nodal staging and potentially lead to unnecessary treatment.

Case Presentation

A 62-year-old woman with ER-positive, HER2-negative invasive lobular carcinoma of the right breast underwent breast-conserving surgery with sentinel lymph node biopsy. Two nodes contained metastatic carcinoma (one macrometastasis and one micrometastasis). A third node demonstrated clusters of epithelioid cells within the capsule, initially raising concern for metastatic disease. Immunohistochemical staining showed strong positivity for S100 and MART-1, faint HMB-45 staining, a low Ki-67 proliferation index, and negativity for pancytokeratin, findings consistent with a benign nodal nevus inclusion.

Conclusion

Nodal nevus inclusions can closely mimic metastatic carcinoma or melanoma in sentinel lymph nodes. Key diagnostic clues include their capsular location, bland cytologic features, and a melanocytic immunoprofile (S100 and MART-1 positivity, faint HMB-45 staining, and low Ki-67). Recognizing this benign entity is critical to avoid misdiagnosis, overstaging, and inappropriate management in breast cancer patients.

Abstract

[AP-16] Benign adenomyoepithelioma of the breast with multiple metastases to the lungs: report of a unique case

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Introduction

Adenomyoepithelioma (AME) of the breast is a tumor composed of two cell populations: epithelial and myoepithelial cells. Malignant AME requires either of the epithelial or myoepithelial component showing cytological atypia, increased mitosis and necrosis in addition to classic AME component. Here, we present a rare case of histologically benign AME with multiple lung metastasis.

Case presentation

In May 2025, a follow-up chest CT scan revealed several solid nodules up to 1.2 cm in size in bilateral lungs. Tracing back her history, this 38-year-old female initially presented with a right breast lump and underwent near-total mastectomy 10 years ago and papilloma was diagnosed. Seven years later, a lump was noted in the left breast and she received total left mastectomy. The diagnosis was also papilloma. Two wedge biopsies of the right lower lobe of lung were performed. Histological sections revealed multiple biphasic tumors with predominant papillary epithelial component lining the lumina and myoepithelial cells forming the outer layer. The morphology was similar to that of previous surgical specimens.

Discussion and conclusion

AME usually follows a benign clinical behavior. In rare instances, a histologically benign tumor may metastasize without histological evidence of malignant transformation. Therefore, close follow-up is mandatory.

Abstract

[AP-17] Local recurrence of a primary small cell neuroendocrine carcinoma of the breast associated with an invasive breast carcinoma of no special type as a pure small cell neuroendocrine carcinoma ; a case report

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Introduction

Primary small cell neuroendocrine carcinomas (SCNEC) of the breast are extremely rare tumors that can coexist with conventional mammary carcinomas.

Case report

We report a case of a 46-year-old woman previously diagnosed with grade 3 invasive breast carcinoma, NST after left breast lump excision at another center. While on chemotherapy, she developed a local recurrence in the same breast. Trucut biopsy revealed a pure SCNEC composed of small cells with hyperchromatic nuclei, high nuclear-to-cytoplasmic ratio, and brisk mitoses displaying strong synaptophysin positivity, a triple-negative phenotype, and a Ki-67 index of 90%. Review of the original specimen revealed a small SCNEC component associated with invasive carcinoma, NST.

Discussion and conclusion

This case underscores the potential of a minor neuroendocrine component in a mixed tumor to recur as a pure SCNEC. Due to its rarity, SCNEC may be overlooked or misdiagnosed. Distinct morphology and uniform neuroendocrine marker expression distinguish SCNEC from breast carcinomas with neuroendocrine differentiation. Metastasis of a non-mammary SCNEC must be excluded. Identification of an in-situ or conventional breast carcinoma and GATA3 immunopositivity support breast origin. Localized SCNEC are generally treated like NST carcinomas, though its aggressive behavior suggests a need for further studies on optimal management.

Abstract

[AP-21] The plot pattern by computer-assisted image analysis of pleural cytology specimens of lung cancer is related to histological subtypes

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Background

Evaluating cytological specimens objectively has not proceeded well.

Objectives

Computer-assisted image analysis was performed using pleural cytology specimens from lung cancer.

Materials and methods

Image analysis was performed using pleural cytology specimens from primary lung adenocarcinoma examined at Gunma University Hospital. The continuous nuclear area within a cluster (NAWC) was measured and plotted against the area of the cluster, and the plots were classified into four plot types (PT). The percentage of cells with a maximum NAWC greater than that of negative cases was calculated as the positive rate (PR).

Results

The PR of cytology-positive cases was significantly higher than that of negative cases (p=0.006). No difference was observed between the PR and histological subtype (HS), PT, or differentiation. When examining the relationship between PT pattern and HS, small cluster types did not appear in solid types, while small cluster types were more common in lepidic types. Micropapillary subtype only showed the vertical type.

Conclusion

The PT and HS showed characteristic trends, because the structure of the cell clusters in the pleural fluid would reflect HS, but the PR was not thought to be affected by the HS or degree of differentiation.

Abstract

[AP-23] Scatter plot analysis of cell cluster area and maximum nuclear area in the cluster could distinguish ovarian cancer cases from tumor-negative cases.

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Background: Objective evaluation of cytological specimens using computer-assisted image analysis (CAIA) has been performed mainly on the basis of nuclear morphology.

Objectives: This study reports an analysis using the characteristics of cell clusters in ascitic specimens from ovarian tumors.

Materials and methods: We used 65 ascitic and peritoneal washing cytology specimens diagnosed as negative, suspicious, or positive from ovarian cancer cases examined at Gunma University.

Results: The positive rate of each case was as follows: Class 3 (Mean = 0.66%), Negative (Mean = 0.72%), Clear cell carcinoma (Mean = 4.66%), and Serous carcinoma (Mean = 9.60%). A statistically significant difference was observed between Serous carcinoma and Negative cases ($p = 0.0015$ Vertical plot pattern correlated with malignancy ($p<0.001$), and horizontal plots did with benign cases ($p<0.001$). In addition, positive cell/cluster ratio in total cells/clusters was significantly increased in Serous carcinoma but not Clear cell carcinoma in comparison to negative cases.

Conclusion: Two-dimensional evaluation of cytomorphological features by CAIA would be a useful tool.

Abstract

[AP-28] A rare case of Bowen's disease progressing to squamous cell carcinoma on a non-sun-exposed area

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Introduction

Squamous cell carcinoma is mainly linked to long-term UV exposure and is more aggressive than basal cell carcinoma. Though it usually appears on sun-exposed skin, chronic injury and inflammation can trigger malignancy.

Case presentation

An 81-year-old Asian woman presented with a year-long history of a pruritic, 10×6 cm, erythematous plaque on her lower back. She self-treated using topical medications, heated compresses, herbal remedies, and mechanical abrasion which caused progression.

On physical exam, the plaque was firm, crusted, and without lymphadenopathy.

Dermoscopy showed white areas, superficial scales, crust, and irregular vessels. Initial biopsy suggested Bowen's disease; a second biopsy confirmed poorly differentiated squamous cell carcinoma. Immunohistochemistry was positive for ep40 and EMA, and negative for CK20 and BerEP4. She completed 35 radiotherapy sessions with improvement.

Discussion and conclusion

Cutaneous squamous cell carcinoma (cSCC) in uncommon sites and demographics can delay diagnosis and treatment. Delays often arise from self-treatment, low health literacy, and symptom underestimation. Mohs micrographic surgery is ideal but radiotherapy with systemic chemotherapy may be an alternative. Initially suspected as Bowen's disease, repeat biopsy confirmed poorly differentiated cSCC.

Clinicians should consider cSCC in unusual locations and lower-risk groups. Early recognition, education, and multidisciplinary care are essential in all suspect cases.

Abstract

[AP-30] Loss of Kdm3a suppresses basal cell carcinoma development in p53-R172H mice

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Background

The p53-R175H mutation (mouse analog: p53-R172H) is a well-characterized gain-of-function variant commonly found in human cancers. While basal cell carcinoma (BCC), the most common human skin cancer, is typically driven by activation of Hedgehog signaling, the role of mutant p53 in BCC remains unclear. Kdm3a, a histone demethylase, supports oncogenic transcriptional programs and may modulate p53-driven tumorigenesis.

Objectives

To determine whether Kdm3a deletion can suppress BCC formation in a p53-R172H mouse model.

Materials and methods

Two mouse cohorts (p53 R172H/+, Kdm3a +/+ and p53 R172H/+, Kdm3a -/-) were generated and genotyped. Mice were examined post-mortem, and skin tumors' morphologic and immunophenotypic features were assessed.

Results

BCC formation was identified in 3 of 28 (10.7%) p53 R172H/+, Kdm3a +/+ mice, but was absent in the p53 R172H/+, Kdm3a -/- group (0/27).

Conclusion

Mutant p53-R172H can promote BCC formation in mice, revealing a novel oncogenic role in skin cancer. Loss of Kdm3a abrogates this effect, highlighting its critical role as an epigenetic modifier in tumor maintenance.

Abstract

[AP-31] Lepromatous Hansen's disease presenting as atypical onychopathy: a case report

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Introduction

Hansen's disease is typically associated with skin lesions and peripheral neuropathies. This case highlights onychopathy as the predominant initial complaint and unusual presentation of lepromatous Hansen's disease. Patients are often referred for nail abnormalities with suspicion of other conditions, underscoring the importance of considering systemic etiologies, even in seemingly localized presentations.

Case presentation

A 38-year-old female presented with a year of progressive nail changes of onycholysis, onychoschizia, and subungual hematomas, affecting toes and fingernails. This coincided with facial and ear skin thickening, madarosis, digit thickening, and peripheral paresthesias. Initial treatments for presumed fungal infection and warts were ineffective. Neurological assessment indicated nerve enlargement and loss of protective sensation peripherally. Biopsy of the nail bed revealed dense nodular to diffuse infiltrates of foamy histiocytes, lymphocytes, plasma cells, occasional neutrophils, rare eosinophils, and numerous globi in the dermis– confirming a diagnosis of lepromatous Hansen's disease.

Discussion and conclusion

This case reaffirms the varied clinical spectrum of Hansen's disease. The patient's primary presentation of onychopathy, an uncommon manifestation, led to delayed diagnosis. Therefore, a high index of suspicion is needed for diagnosing systemic diseases like Hansen's when encountering unusual or treatment-resistant dermatological conditions, particularly onychopathy. Early and accurate diagnosis is crucial for effective management and preventing complications.

Abstract

[AP-35] Automated prediction of complete response to neoadjuvant chemotherapy for breast carcinoma using pretreatment core needle biopsy specimens based on a deep learning model

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Background

Early prediction of the response to neoadjuvant chemotherapy (NAC) is crucial for enabling personalized treatment paradigms in breast carcinoma. Studies have examined the predictive value of digital pathology image analysis for NAC response using human-annotated regions of interest, rather than utilizing whole-slide images (WSIs) directly.

Objectives

We aimed to assess the predictive value of pretreatment core needle biopsy for pathological complete response to NAC in patients with breast carcinoma using artificial intelligence-based, computer-aided WSI analysis.

Materials and methods

We evaluated 130 patients who underwent NAC, followed by breast carcinoma surgery. From each WSI of the pretreatment core needle biopsy. Our classification model employed a fusion-based approach that integrated both image data and clinical metadata, including age at diagnosis, hormone receptor expression status, and the Ki-67 labeling index.

Results

Our model achieved an accuracy of 0.9231, which is comparable to the performance of studies that used expert annotations. Regarding the size and number of cropped images in our model, intermediate image resolutions and quantities offered the best balance between sufficient detail and computational efficiency for this specific predictive task.

Conclusion

Our model can assist in assessing the effectiveness of NAC during treatment and predicting patient outcomes before surgery.

Abstract

[AP-37] Artificial intelligence-assisted lipid droplet quantification enhances interobserver agreement in grading metabolic dysfunction–associated steatotic liver disease

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Background

Accurate pathological grading the severity of MASLD is important in diagnosis and treatment. We developed an AI tool called BSMatch which labels fatty droplets in whole slide images (WSI) and gives the percentage of steatosis and the recommended grade.

Objectives

This study aims to evaluate the efficacy of the AI-assisted tool in improving steatosis grading in a pathological diagnostic setting.

Materials and methods

Two hundred cases of WSIs were included and evaluated by a senior liver disease specialist pathologist. Four other doctors, including two mid-level pathologists, one junior pathologist, and one hepatologist, participated in this test. First, the doctors assessed steatosis without AI assistance. After a 2-month washout period, the doctors re-evaluated the cases with BSMatch. Agreement rates with the senior pathologist and interobserver kappa values were calculated for both sets of interpretations.

Results

The agreement rates of the steatosis grading were increased for all four doctors. The mean agreement rate was increased from 0.65 to 0.74 (Range: before AI 0.48~0.75; after AI 0.67~0.77). The inter-observer kappa was increased from 0.48 to 0.73 after AI assistance.

Conclusion

AI-assisted tool can increase accuracy and reduce inter-observer discrepancy in pathological evaluation of MASLD in doctors of all levels of training background.

Abstract

[AP-38] Assessment of tumor infiltrating lymphocytes by a web-based image analysis method

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Background

Assessment of tumor-infiltrating lymphocytes (TILs) is an established prognostic marker for many cancers.

Objectives

To evaluate the utility of a web-based image analysis method for enumerating TILs.

Materials and methods

Forty cases of oral carcinoma were chosen, and immunohistochemistry for CD3, CD8, CD4, and FOXP3 were performed on the tumour sections. Images of the slides were captured at 200X and analysed using FIJI / Image J software downloaded from https://imajej.nih.gov. A positive area fraction was calculated. The final positive area fraction of each IHC stained slide was calculated using the mean of the values of the ten images. The positive area fraction/ case was converted into a percentage scale.

Results

Different IHC patterns; membranous(CD4), cytoplasmic (CD3, CD8) and nuclear (FoxP3) could be satisfactorily analysed. The data obtained by the web-based image analysis was in concordance with the data obtained by the visual assessment (eyeballing) method.

Conclusions

The web-based image analysis software does not require high storage capacity and can be run on routine office desktops or laptops, unlike the whole slide imaging digital slide scanners. It is cost-effective, easy to perform and brings more objectivity to the assessment as compared to visual counting.

Abstract

[AP-40] A cost-effective AI-based pathology image analysis platform

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Background

AI-assisted digital pathology image analysis has emerged as a viable solution to the severe shortage of pathologists. However, adoption remains limited due to the high costs of whole-slide scanners and storage infrastructure.

Objectives

This study aims to develop a cost-effective pathology image analysis system that supports standard microscopes for AI-supportive quantification.

Materials and methods

We developed the ALOVAS microscope-based digital pathology platform, which interfaces with microscopes and provides real-time AI-assisted analysis. In this study, the platform was integrated with AI models for ER and PR detection in breast cancer. These models were speeded up for inference on 20x or 40x microscope images at a resolution of 1440×1024.

Results

The ER and PR models deliver results within approximately 2 seconds, identifying positive and negative tumor cell nuclei and generating quantifiable metrics such as positive cell ratio. On the testing dataset, the ER model and the PR model achieved the precision of 0.74 and 0.81, respectively, and the classification accuracy of 87.6% and 88.0%, respectively.

Conclusion

The ALOVAS microscope platform effectively supports pathology diagnostics while dramatically reducing the costs associated with digital pathology implementation. It is particularly suitable for small to medium-sized hospitals, enabling broader access to cutting-edge AI pathology technologies.

Abstract

[AP-41] Two cases of pituitary neuroendocrine tumors developing in lynch syndrome patients

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Introduction

Lynch syndrome is an inherent syndrome caused by mutations in DNA mismatch repair genes that increases the risk of developing various tumors. There are few reports on pituitary neuroendocrine tumor (PitNET) in Lynch syndrome, and its characteristics have not been elucidated. We herein present two cases of PitNET in Lynch syndrome patients.

Case presentation

The patients were a 36-year-old female and a 62-year-old female with Lynch syndrome harboring MSH2 and MSH6 mutations, respectively. In both cases, imaging studies revealed a pituitary mass extending into the surrounding area. Histologically, tumor cells with eosinophilic cytoplasm and nuclear pleomorphism proliferate in either a solid or perivascular growth pattern. Immunohistochemistry revealed diffuse expression of p53 and ACTH. Increased mitotic activity and a high Ki-67 index were observed. The patients were diagnosed with corticotroph PitNET. Liver metastasis was reported in one patient, and multiple recurrences were detected in the other patient.

Discussion and conclusion

In the current and previous studies, only 7 cases of PitNETs in Lynch syndrome have been reported. Most cases show invasion, marked nuclear atypia, and a high proliferative activity. PitNET in Lynch syndrome are suggested to be histologically and clinically more malignant than sporadic PitNET.

Abstract

[AP-42] Co-occurrence of papillary and oncocytic carcinomas of the thyroid, a rare clinicopathological event with poor prognosis. a case report.

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Introduction

Papillary thyroid carcinoma (PTC) and follicular thyroid carcinoma (FTC) are the first and the second most common thyroid cancers, representing about 80% and 10% of the thyroid malignancies, respectively. PTC shows characteristic nuclear features which are the same among the different tumor subtypes, while FTC (including oncocytic carcinoma) shows specifically, evidence of capsular and/or vascular invasion. Although composite tumors have been previously reported, co-occurrence of collision tumors in the thyroid is a rare event, with the majority of cases representing simultaneous papillary and medullary thyroid carcinomas. The co-occurrence of PTC and FTC is a much rarer event.

Case presentation

A 52-year-old female patient presented to ENT Department at Al Hada Military Hospital- Taif Region- Saudi Arabi, with Rt lobe thyroid swelling, that was radiological complex and classified as TIRADS IV. Fine needle aspiration result was Follicular Neoplasm, Oncocytic Subtype (Bethesda Category IV). Thyroidectomy was done. Pathological examination of the thyroid shows Rt lobe nodule with yellowish brown cut section, that turned out to be onccocytic carcinoma with extensive capsular and lymphovascular invasion, pathological stage pT2 Nx Mx. Serial sections of the Lt lobe revealed a firm grayish white focus that turned out to be classic PTC with the characteristic nuclear features and papillary projections, pathological stage pT1a Nx Mx. Surgical margins were clear for both tumors.

Discussion and conclusion

This patient represents simultaneous occurrence of PTC and oncocytic carcinoma in Lt lobe and Rt lobe of thyroid gland, respectively, with no apparent etiology. Such cases have poor prognosis and aggressive behavior. Endocrinologists and pathologists must be vigilant and suspicious about the possibility of such an occurrence, that’s why thorough gross examination of the thyroid gland is of great importance as small PTC might be missed.

Abstract

[AP-44] Atypical parathyroid tumour - a case report of a diagnostically challenging entity.

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Introduction

Atypical parathyroid tumors (APT) are rare neoplasms with features intermediate between adenoma and carcinoma.

Case Presentation

A 36 yr old male was investigated for symptomatic primary hyperparathyroidism with markedly elevated parathyroid hormone levels. CT showed a hypoechoic lesion inferior to the left thyroid lobe without surrounding invasion. Parathyroidectomy revealed a 2.5x2.9x2.5cm encapsulated lesion composed of trabeculae and islands of round cells separated by broad fibrous bands displaying focal nuclear atypia and nuclear enlargement. Mitoses were 5/10mm2. Macronucleoli, atypical mitoses and necrosis were absent. An equivocal area of capsular invasion was seen. Unequivocal lymphovascular, perineural and soft tissue invasion were absent.

Tumor cells were positive for Chromogranin and E-cadherin without P53 overexpression. Ki67 index was 7%. Parafibromin was unavailable.

No evidence of metastatic disease or a familial syndrome was discovered on follow-up.

Discussion and conclusion

APT are diagnostically challenging entities needing multidisciplinary discussion. Majority are sporadic; few are linked to familial syndromes like MEN1. Recurrence and metastases are rare. Loss of nuclear parafibromin predicts higher recurrence risk and warrants long-term follow-up. Differentiation from carcinoma requires exclusion of unequivocal invasion or metastasis. Ki67 index of >5%, P53 and Galectin3 overexpression, reduced BCL2, p27 and E-cadherin expression are features supportive of carcinoma.

Abstract

[AP-45] Decade-long insights into hashimoto thyroiditis in high-altitude taif city: a retrospective cytological analysis

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Introduction:

Hashimoto's thyroiditis (HT) is the most common autoimmune thyroid disorder, which usually presents with hypothyroidism. HT is diagnosed accurately by Fine Needle Aspiration Cytology (FNAC) in most cases. Living in high altitudes and associated hypoxia can alter the hypothalamic-pituitary endocrine axis (thyroid, adrenal, and gonadal). Taif is a city in Saudi Arabia situated at an elevation of 1,879 meters above sea level.

Methods:

A total of 3,022 cases were retrospectively studied from 2014 to 2024, drawn from the archives of the histopathology department at our hospital. Subtyping of cases was performed according to cytological diagnosis, following Bethesda System Guidelines for reporting thyroid cytology. The percentage of cases diagnosed with HT was identified, along with correlations with various clinicopathologic parameters. No exclusion criteria were proposed.

Results:

Out of our 3022 cases, 667 cases (22.1%) were diagnosed as Hashimoto's thyroiditis, with a median age of 48 years. Of these, 597 cases (89.5%) were females, and 70 cases (10.5%) were males. While 2355 (77.9 %) cases were diagnosed as other entities: unsatisfactory (15.1 %) adenomatoid nodule (33.6 %), colloid nodule (19.4 %), suspicious for papillary and follicular neoplasms (4.2 %), papillary thyroid carcinoma (2.5 %), follicular neoplasm (0.9 %), medullary thyroid carcinoma (0.05 %), anaplastic carcinoma (0.1 %) as well as other diagnoses (2 %). The median age for the other entities was 47 years, among whom 2,041

Abstract

[AP-46] Adrenal collision tumors of myelolipoma and schwannoma: a rare case report

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Introduction

Myelolipoma is an uncommon benign neoplasm of the adrenal gland, and schwannoma - a benign peripheral nerve sheath tumor - is even rarer in this location. The synchronous occurrence of both as a primary adrenal collision tumor is exceptionally rare, with only a few cases documented in the literature.

Case presentation

We report the case of a 62-year-old woman in whom a large right adrenal mass was incidentally detected during a routine health check-up. Contrast-enhanced computed tomography revealed an 11 cm heterogeneous enhancing mass in the right adrenal gland, with suspected liver invasion. The patient underwent surgical resection. Histopathological examination showed that the predominant component of the mass was consistent with schwannoma, supported by strong S-100 immunoreactivity. Adjacent to it was a well-circumscribed, brownish nodule measuring approximately 1.5 cm, identified as a myelolipoma. No features of malignancy or local invasion were identified. Postoperative recovery was uneventful, with no abnormalities detected on follow-up imaging at three months.

Discussion and conclusion

Adrenal collision tumors composed of schwannoma and myelolipoma are exceedingly rare and often lack specific clinical or radiologic characteristics. Definitive diagnosis requires thorough gross and microscopic evaluation. Long-term prognosis is expected to be positive due to the benign nature of both components.

Abstract

[AP-48] Postmortem morphology of the heart in alcoholic cardiomyopathy

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Background: Alcoholic cardiomyopathy (ACMP) is a notable etiology of progressive heart failure and sudden cardiac death among individuals with a history of alcohol consumption. The objective is to establish postmortem diagnostic criteria for ACMP.

Materials and methods: A retrospective review was conducted on 70 ACMP cases. Myocardial tissue was examined using hematoxylin and eosin, Hart's resorcinol-fuchsin, and Masson's trichrome staining. Ethanol levels in blood and urine were measured via gas chromatography. The control group consisted of seven individuals with idiopathic dilated cardiomyopathy.

Results: The study involved 70 individuals aged 16 to 40 years, with a male-to-female ratio of about 3:1. Concomitant conditions included chronic alcoholic hepatitis, left-sided bronchopneumonia, and pulmonary thromboembolism. Causes of death were primarily cardiac failure. Toxicology revealed ethanol in the blood and urine of 45 (64.3%) individuals. Macroscopically, the hearts weighed 400–500 g, with ventricular dilation and uneven hypertrophy.

Histologically, cardiomyocyte hypertrophy, a progressive reduction in cardiomyocyte number, and fibrosis were observed in the stromal, perivascular, and subendocardial areas. About one-third of cases showed subepicardial focal or diffuse ventricular lipomatosis.

Conclusions: We propose criteria for diagnosing ACMP, including hypertrophy, a progressive decline in cardiomyocytes, extensive fibrosis, and subepicardial lipomatosis of both ventricles.

Abstract

[AP-49] Multiorgan histopathological changes in a fatal case of meningococcemia

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Introduction

Meningococcal infection is a rapidly progressive and often fatal systemic illness caused by Neisseria meningitidis. It can lead to septic shock, multiorgan failure, and sudden death, particularly in young, previously healthy individuals. Early clinical diagnosis remains difficult due to the nonspecific nature of initial symptoms. In such instances, forensic autopsy plays a vital role in determining the precise cause of death.

Case Presentation

We report a fatal case of meningococcemia in a 19-year-old previously healthy male soldier who developed high-grade fever and purpuric rash. Despite intensive resuscitation, he rapidly progressed to septic shock and cardiopulmonary arrest. Postmortem cerebrospinal fluid PCR confirmed Neisseria meningitidis infection.

Autopsy findings included acute meningoencephalitis, myocardial necrosis, acute bronchopneumonia, microthrombi in dermal, pulmonary, and myocardial vessels, subacute hepatitis, acute tubular necrosis, adrenal medullary hemorrhage, and generalized visceral congestion.

Discussion and Conclusion

This case underscores the fulminant progression and widespread histopathological damage characteristic of meningococcemia. The integration of forensic autopsy, histopathology, and postmortem microbiology was crucial in establishing the cause of death and contributes valuable data to both medicolegal practice and epidemiological surveillance. Timely recognition of its clinical features and autopsy findings is essential in guiding public health responses and preventing outbreaks.

Abstract

[AP-50] Clinicopathological and molecular characterization of melanoma metastatic to the gastrointestinal tract

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Background

Malignant melanoma is an aggressive skin malignancy with high metastatic potential, commonly metastasizing to the gastrointestinal (GI) tract.

Objectives

To examine the clinicopathological and molecular characteristics of melanoma metastatic to the GI tract.

Materials and methods

Clinical, histologic, and molecular data from 18 patients with melanoma metastatic to the GI tract, identified between 2020 to 2025, were reviewed.

Results

This cohort (6 females and 12 males, average age 66) showed metastatic sites including liver (33%), small bowel (28%), colon (17%), stomach (11%), simultaneous stomach and small bowel (6%), and mesenteric lymph node (6%). Primary melanomas were cutaneous (67%), ocular (11%), or unknown (22%). 17% of patients presented with GI metastasis as initial disease. Metastases were discovered via surveillance imaging without GI symptoms (56%), restaging imaging (6%), incidental workup of unrelated disease (17%), esophagogastroduodenoscopy (EGD) and colonoscopy for GI symptoms (17%), and weight loss workup (6%). Molecular variants identified included BRAF (39%), NRAS (33%), GNA11 (11%), GNAQ (11%), BAP1 (11%), TERT (6%), TP53 (6%), NF1 (6%), CHEK2 (6%), and PTEN (6%). Two patients had no molecular findings and one had insufficient tissue for analysis.

Conclusions

Melanoma metastatic to the GI tract has varied presentations and is primarily detected through imaging.

Abstract

[AP-52] Epithelioid schwannoma of colon: a rare tumor in unusual site

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Introduction

Benign epithelioid schwannoma is a rare histological variant of schwannoma, predominantly occurring in dermal and subcutaneous tissue. Its occurrence in the colon is extremely rare, with only 12 cases documented in the literature.

Case presentation

We report a case of epithelioid schwannoma in a 68-year-old male, incidentally detected during colonoscopy and treated with low anterior resection. Grossly, it was a 0.9cm well-demarcated whitish solid mass located in the muscularis propria of sigmoid colon. Histologically, the tumor was composed of round to oval epithelioid cells arranged in sheets and trabecular patterns, with microcystic areas and a prominent myxoid stroma. Peripheral lymphoid cuffing was also observed. There was no mitotic activity, necrosis or Verocay bodies.

Immunohistochemically, the tumor cells were diffusely positive for S-100, focally positive for CD34 and negative for c-kit, DOG-1, cytokeratin, actin, desmin and HMB45. INI-1 expression was retained and Ki-67 proliferation index was < 1%.

Discussion and conclusion

Colonic epithelioid schwannoma is exceedingly rare but behaves in a benign clinical course without recurrence or metastasis. Awareness of this variant is important to avoid misdiagnosis as malignancy. We present this case highlighting key histologic and immunophenotypic features aiding differential diagnosis.

Abstract

[AP-53] Unmasking the rare: concurrent pancreatic serous cystadenoma and neuroendocrine tumor – a diagnostic conundrum

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Background

Pancreatic serous cystadenomas (SCAs) are benign neoplasms that are often misdiagnosed during routine radiological investigations, resulting in underdiagnosis of more aggressive conditions.

Objectives

This study aimed to characterize concurrent pNETs in confirmed SCAs, addressing diagnostic challenges and treatment implications.

Materials and Methods: Retrospectively reviewed data from 12 patients with histopathologically confirmed SCAs (2014-2024). Clinico-radiological data were collected, and H&E staining with neuroendocrine IHC markers was performed on 8 samples. Patient and family history, including VHL association, were also recorded.

Results

Only one of 12 SCA patients (8.3%) had coexisting pNETs. Preoperative imaging often misclassified lesions (83.3%), frequently as mucinous cystic neoplasms, IPMNs, or adenocarcinomas. Histologically, SCAs varied, while pNETs were well-differentiated (NET G1/G2), confirmed by positive chromogranin and synaptophysin on IHC. No MEN1 or VHL syndromes were identified in this group.

Conclusion

The rare co-occurrence of SCA and pNET is clinically significant due to increased malignant potential, often requiring aggressive management. IHC is crucial for detecting neuroendocrine foci missed by routine histology. Given pNET's association with VHL syndrome, VHL screening is recommended in such cases. Awareness and careful histopathological evaluation are vital for accurate diagnosis, emphasizing a multidisciplinary approach for pancreatic cystic lesions, especially with atypical imaging.

Abstract

[AP-54] Difference in characteristics between poorly cohesive carcinoma and mixed adenocarcinoma in gastric cancer

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Background

Mixed adenocarcinoma (MC) is defined as a tumor with more than two distinct morphological components: intestinal adenocarcinoma (IC) and poorly cohesive carcinoma (PC). PC and MC have different prognosis despite the morphological similarity.

Objectives

The purpose of this study is to find out the difference between these two tumors

Materials and methods

Total 1400 cases of gastric cancer were divided into IC, MC, and PC, and each was divided into early gastric cancer (EGC) and advanced gastric cancer (AGC). Several clinicopathologic characteristics and survival rates were compared according to histological types in EGC and AGC.

Results

In EGC, submucosal invasion and lymph node metastasis was most common in MC compared to other subtypes (p=<0.001, 0.003). There was no difference in the 5-year overall survival (OS), but the 5-year disease-free survival (DFS) was lower in MC than in IC (p=0.041). In AGC, the depth of tumor invasion was deepest in PC (p<0.001), and lymph node metastasis was most common in MC (p=0.047). Both the 5-year OS and DFS were lower in PC than IC (p=0.006, 0.017).

Conclusion

The prognosis of MC in EGC is poor compared to other histological types. This may be helpful in determining the treatment direction for ME.

Abstract

[AP-55] When appendicectomy isn't the end: retrospective insights into a delayed diagnosis of crohn's disease

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Introduction

Crohn's disease may initially present with non-specific symptoms and mimic acute appendicitis. Missed histological and clinical clues can result in delayed diagnosis and subsequent complications.

Case Presentation

A 29-year-old male presented with intermittent right-sided abdominal pain. Ultrasound suggested acute appendicitis, and an appendicectomy was performed. Histology showed mixed inflammation and histiocyte aggregates but no features of acute appendicitis. Crohn's disease was not suspected at the time. The patient had a history of low anal fistulectomy. Months later, he developed chronic abdominal pain, altered bowel habits, and mucus in stools. Imaging revealed thickened distal ileal loops. Laparoscopy showed adherent caecum and terminal ileum with a caecal mass. A limited right hemicolectomy was done. Gross examination showed cobblestone mucosa and small polyps. Histology confirmed Crohn's disease, showing crypt distortion, cryptitis, crypt abscesses, pyloric gland metaplasia, transmural inflammation, fissuring ulcers, lymphoid aggregates, and non-caseating granulomata.

Discussion and Conclusion

This case underscores the value of correlating subtle histological findings with clinical context. Prior fistula surgery and unusual appendiceal histology should prompt further evaluation. Early multidisciplinary review can prevent diagnostic delays and unnecessary surgeries.

Abstract

[AP-58] Loss of CDX2 expression in vietnamese patients with colorectal cancer: clinicopathologic correlations and prognostic significance

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Background

CDX2 is a key transcription factor in intestinal epithelial differentiation. Loss of CDX2 expression has been associated with aggressive tumor features and may define a distinct molecular subtype of colorectal cancer.

Objectives

To investigate the clinicopathologic characteristics of colorectal cancer cases with low CDX2 expression in Vietnamese patients.

Materials and methods

A cross-sectional descriptive study was conducted on 356 CRC cases. Among these, 40 cases with low CDX2 expression were analyzed for clinical features, histopathologic findings, and other prognostic factors.

Results

Low CDX2 expression was observed in 11.2% of cases and was significantly associated with female gender, right-sided colonic location, and aggressive features such as advanced tumor stage (T3–T4), lymph node and distant metastases, perineural and lymphovascular invasion, and positive resection margins. Histologically, most tumors were conventional adenocarcinomas with moderate to poor differentiation (OR = 3.8; $p < 0.014$), accompanied by stromal lymphocytic infiltration and low tumor budding activity. Some rare variants included mucinous, serrated, or adenoma-like patterns. Loss of mismatch repair (MMR) protein expression was identified in a small proportion of cases. These features support the potential role of CDX2 as a prognostic marker in colorectal cancer.

Conclusion

Low CDX2 expression was associated with female gender, right-sided tumors, and several histopathologic features suggestive of a distinct molecular subtype, potentially related to CIMP or MSI-H phenotypes.

Abstract

[AP-59] Appendiceal mucinous neoplasms: a 10 years' experience from a tertiary care center in pakistan

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Background

Appendiceal mucinous neoplasms show a range of histological features with differing biological behaviors. The current WHO classifies these tumors into low grade appendiceal mucinous neoplasm (L AMN), high grade appendiceal mucinous neoplasms (HAMN) and mucinous adenocarcinoma. The outcome of these tumors depends greatly on the stage of these tumors.

Objectives

To assess the incidence and clinicopathological features of appendiceal mucinous neoplasms in our institute from 2016 to 2024.

Materials and methods

Retrospective cases of patients with a diagnosis of LAMN, HAMN and mucinous adenocarcinomas of the appendix were retrieved from the pathology files.

Inclusion Criateria

All cases of LAMN, HAMN and mucinous adenocarcinomas of the appendix diagnosed from 2016 to 2024 were included.

Exclusion Criteria

1-Cases diagnosed as mucocele, adenomas and non-mucinous adenocarcinoma.

2- Cases with a synchronous non mucinous tumor.

Results

A total of 165 cases of appendiceal neoplasms were retrieved over a period of 10 years. There were 149 LAMN, 5 HAMN and 11 mucinous adenocarcinomas. There were 112 females and 53 males. The age range was 70 years to 90 years. Average age for **LAMN was** 50 years, HAMN 47 years and for mucinous adenocarcinoma 49 years. For LAMN 88 cases had a stage Tis, T3 was seen in 15 cases and 46 had T4. For HAMN 1 case was T1, 1 case was T2 and 3 cases were T4. Mucinous adenocarcinoma showed 4 cases with T3 and 7 cases with T4. Results regarding gross appearance, perforation, peritoneal metastases and follow-up will be included in the poster

Conclusion

We present a large series of appendiceal mucinous neoplasms from Pakistan. Prognosis depends on the grade and stage of the tumor.

Abstract

[AP-60] Myopericytoma-like intramural gastric neoplasm with NRF1::BRAF gene fusion: a case report

Fatima Safdar, Anoshia Afzal, Nasir Ud Din

Introduction: Myopericytoma is a rare, benign tumor of perivascular myoid cells, usually found in skin and superficial soft tissues of distal extremities. Visceral involvement, particularly in the gastrointestinal tract is uncommon. We present a rare case of gastric myopericytoma with NRF1::BRAF gene fusion which has not been described in mesenchymal neoplasms before.

Case Presentation: A 40-year-old male presented with abdominal pain, per rectal bleeding, and weight loss for six months. Imaging and endoscopy identified a gastric mass, and a wedge resection was performed. Grossly, a 3 x 2 cm intramural lesion was identified. Histology revealed spindle and epithelioid cells arranged in communicating aggregates with prominent intersecting smooth muscle bundles and extensive hemangiopericytoma-like communicating vascular channels. An extensive panel of immunohistochemistry was performed and only showed focal S100 positivity. The tumor was negative for CAM5.2, SOX10, Synaptophysin, CD56, Melan-A, STAT6, CD34, ERG, HHV-8, ASMA, AE1/AE3, MUC4, NUT, Pan-TRK, ALK and CD117. DOG1 was equivocal. Targeted RNA sequencing (Illumina TruSight panel) identified an NRF1::BRAF gene fusion.

Conclusion: This case highlights an unusual myopericytoma-like intramural gastric neoplasm with a unique genetic alteration. Accurate diagnosis relies on a combination of histopathology, immunohistochemistry, and molecular testing, particularly in rare and diagnostically challenging cases.

Abstract

[AP-61] Primary squamous cell carcinoma of the descending-sigmoid colon: a rare case report

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Introduction

Primary squamous cell carcinoma (SCC) of the colon is an extremely rare entity, accounting for less than 0.1% of all colorectal malignancies. The underlying etiology and pathogenesis remain unclear; however, common risk factors such as chronic inflammatory bowel diseases, squamous metaplasia, chronic infections, or radiation exposure have been suggested as contributing factors.

Case presentation

We report a case of a 30-year-old Vietnamese female with no history of chronic inflammatory bowel diseases, pelvic irradiation or prior malignancy . Abdominal computed tomography revealed a large mass in the sigmoid colon. The patient subsequently underwent segmental resection of the descending and sigmoid. Histopathological analysis revealed poorly differentiated squamous cell carcinoma (Grade 3), invading the serosa (pT4a), without lymphovascular or perineural invasion. All 29 resected lymph nodes (N0) and surgical margins (R0) were negative for malignancy.

Discussion and conclusion

Primary SCC of the colon remains both a diagnostic and therapeutic challenge. This case is particularly notable due to the young age patient and absence of recognized risk factors, corfirming the primary origin of colonic SCC is especially critical and requires the exclusion of metastasis from common primary sites, such as esophagus, lung, cervix.

This report contributes to the limited body of literature and highlights the importance of multidisciplinary evaluation. Futher studies are needed to guide optial management.

Abstract

[AP-64] Synchronous low grade appendiceal mucinous neoplasm and neuroendocrine tumor of the appendix. a report of two cases.

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Introduction

Mucinous epithelial neoplasms are rare, accounting for less than 1% of all cancers of the appendix. Primary neuroendocrine tumors of the appendix comprise only 0.5% of all neoplasms. Finding a synchronous low grade appendiceal mucinous neoplasm (LAMN) and a primary neuroendocrine tumor (NET) is a rarity and has been reported twice before our cases.

Case presentation

We present 2 cases of synchronous LAMN and primary neuroendocrine tumor of the appendix. Both patients were females aged 56 years and 57 years respectively. They presented with an appendicular mass. Patient 1 underwent right hemi colectomy and patient 2 underwent appendectomy only. Histologically both cases showed simultaneous LAM N and neuroendocrine tumor, Grade 1. Immunohistochemical markers were used for the confirmation of NET.

Discussion and conclusion

It is imperative to know that these rare tumors can occur simultaneously. Treatment for L AM N and NET are different. LA MN can cause pseudomyxoma peritonei. Treatment options include right hemicolectomy along with D bulking surgery and hyperthermic intraperitoneal chemotherapy (HIPEC). Grade 1, NET requires appendectomy only. Knowledge of the coexistence of these two tumors is important for the diagnosis.

Abstract

[AP-65] Ewing sarcoma of the kidney: case report and review of literature with implications for early diagnosis in resource-limited settings

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Introduction

Primary Ewing sarcoma of the kidney is an exceptionally rare malignancy, documented only in case reports. Due to its overlapping features with other small round blue cell tumors, early and accurate diagnosis is critical, especially in resource-limited settings where access to advanced molecular testing may be constrained.

Case presentation

A 28-year-old male presented with recurrent urinary tract infections. An incidental renal mass was discovered on ultrasound, and CT imaging revealed a large, heterogeneously enhancing left renal mass. Laparoscopic radical nephrectomy was performed. Macroscopy showed a 10-cm solid-cystic friable mass. Histopathology revealed solid sheets of small round blue cells with rosette-like structures and extensive necrosis. Immunohistochemistry showed diffuse CD99 positivity and intact INI-1, while WT1, panCK, myogenin, synaptophysin, chromogranin, CD56, PAX8, LCA, and EMA were negative, consistent with Ewing sarcoma.

Discussion and conclusion

Ewing sarcoma of the kidney is defined by consistent histologic and immunophenotypic features. Supportive IHC markers like CD99, NKX2-2, and FLI1 may aid diagnosis, while negative staining for WT1, desmin, myogenin, and LCA helps exclude rhabdomyosarcoma and lymphoma. Although molecular confirmation of the EWSR1::FLI1 fusion is ideal, a focused IHC panel can effectively guide diagnosis and treatment in low-resource settings, supporting better patient outcomes.

Abstract

[AP-70] Perinephric myxoid pseudotumor of fat: a diagnostic challenge

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Introduction

Perinephric myxoid pseudotumor is an exceptionally rare non-neoplastic lesion. It is typically discovered incidentally and may pose diagnostic challenges due to its histological and radiological features. Herein, we described a first case in Vietnam.

Case presentation

A 51-year-old male was found a right perinephric mass during a routine health check. Medical history was unremarkable for renal disease. Abdominal CT-Scan revealed a multilobulated, well-circumscribed lesion in the right perinephric retroperitoneum, measuring 8 × 8 cm. The patient underwent total excision of the mass. Gross examination revealed a multilobulated mass with a smooth capsule and homogeneous mucoid yellow cut surface, without hemorrhage, fibrosis, or necrosis. Histology revealed a well-demarcated lesion with myxoid stroma, arborizing vessels, lymphoid follicles, and mature adipose tissue without atypia. Immunohistochemistry was negative for S100, HMB45, MDM2, synaptophysin, and β-catenin, with a low Ki-67 index. Findings support perinephric myxoid pseudotumor. No recurrence has occurred postoperatively.

Discussion and conclusion

The diagnosis of angiomyolipoma was excluded by the absence of smooth muscle, thick-walled vessels, and HMB45 expression. Dedifferentiated liposarcoma was ruled out due to the lack of the well-differentiated liposarcoma component, nuclear atypia, and MDM2 expression. Negative S100 and synaptophysin staining excluded neuronal tumors, while fibromatosis was unlikely given the absence of a fascicular pattern and β-catenin negativity. IgG4-related disease was excluded due to the lack of storiform fibrosis and plasma cell infiltration. The presence of prominent myxoid stroma, bland spindle-to-stellate cells, and mature adipose tissue supported the diagnosis of perinephric myxoid pseudotumor. Complete excision is curative, with no reported recurrences.

Abstract

[AP-71] Renal malakoplakia masquerading as malignancy: a rare case report and literature review

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Introduction

Malakoplakia is a rare chronic granulomatous disease caused by impaired bacterial clearance by macrophages, typically affecting immunocompromised individuals such as those with poorly controlled diabetes or chronic infections. While the bladder is most frequently involved, kidney involvement is extremely uncommon and may manifest as tumor-like lesions that closely resemble kidney cancer on clinical and imaging assessment, often leading to diagnostic pitfalls and unnecessary surgery.

Case presentation

A 62-year-old woman with type 2 diabetes presented with dull left flank pain. CT imaging revealed a solitary kidney mass invading Gerota's fascia and infiltrating the perinephric fat, highly suggestive of renal cell carcinoma, prompting radical nephrectomy. Histopathological analysis demonstrated sheets of histiocytes (von Hansemann cells) containing distinctive Michaelis–Gutmann bodies, a hallmark of malakoplakia, which were conclusively highlighted by PAS and Von Kossa special stains. Immunohistochemistry (CD68, CD163) further supported the diagnosis, and postoperative Ciprofloxacin therapy resulted in complete clinical recovery.

Discussion and conclusion

This case illustrates the diagnostic challenge of renal malakoplakia and emphasizes the critical role of histopathological evaluation in distinguishing it from malignancy. Recognition of von Hansemann histiocytes and pathognomonic Michaelis–Gutmann bodies is essential for definitive diagnosis. Awareness of this rare entity is crucial for pathologists, radiologists, and clinicians to prevent overtreatment, especially in atypical unilateral kidney masses in non-transplant patients presenting with isolated flank pain.

Abstract

[AP-72] Spontaneous regression of a testicular seminoma-a rare occurrence -case report

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Introduction

Spontaneous regression of the testicular tumor is a rare phenomenon described as complete or partial regressed tumor with or without metastasis in the absence of any therapeutic intervention leaving a scar or fibrosis in the testis.

Case report

A 43-year-old male presented with lower back pain. On examination there was mild lower abdominal tenderness with no palpable testicular or abdominal masses. Radiologically there was a retroperitoneal mass with a testicular tumor. Tru cut biopsy of the retroperitoneal mass was performed which showed sheets of large polygonal cells with vesicular nuclei, prominent nucleoli and abundant cytoplasm. Cells were separated by thin fibrous septa containing lymphocytes. Tumor cells were positive for CD117 and PLAP: confirming the diagnosis of testicular seminoma with metastasis. One month after the biopsy underwent left orchidectomy. He had not been on any treatment during that interval time period. Macroscopically there was a nodular area in the testis measuring 20x12x12mm. Microscopically it was a scar tissue with hyalinization and fibrosis. One focus measuring 2x1mm contains viable tumor with appearance of residual seminoma. Rest of the tissue showed atrophic seminiferous tubules without as Germ Cell Neoplasia In Situ. Diagnosis of partial spontaneous regression of testicular seminoma was made

Discussion

Less than 5% of testicular tumors undergo spontaneous regression without any therapeutic intervention. Partial regression, nonspecific symptoms, absence of a palpable testicular mass make diagnosis difficult. A high degree of suspicion and awareness of the pathologist, clinician and radiologist is necessary for early diagnosis, proper management and patient survival.

Abstract

[AP-75] Leiomyomatosis peritonealis disseminata: unveiling a benign entity behind a masquerade of disseminated malignancy. a case report

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Introduction

Leiomyomatosis Peritonealis Disseminata (LPD) is a rare condition estimated to occur in <1/10,000,000 women. It is characterized by the presence of multiple benign smooth muscle nodules dispersed over the abdominopelvic viscera and peritoneum, simulating disseminated malignancy.

Case Description

A 46-year-old female underwent laparotomy due to abnormal uterine bleeding. Intraoperative findings revealed nodular implants in the omentum, retroperitoneum, and rectosigmoid colon, in addition to uterine fibroids. Representative tissues were submitted from the specimen mentioned for histopathologic examination. Cut sections revealed well-circumscribed masses with whorled, homogenous, solid surfaces. Microscopic examination showed intersecting fascicles of spindle cells. No necrosis, cellular atypia, and mitoses were seen. Immunohistochemistry studies were done for Smooth muscle actin (SMA), H-caldesmon, Beta-catenin, CD117, Estrogen and Progesterone.

Discussion and Conclusion

SMA and H-caldesmon positive staining confirmed the smooth muscle origin of the tumor. Negative staining for Beta-catenin and CD117 excluded desmoid fibromatosis and gastrointestinal stromal tumors (GISTs), respectively, as differential diagnoses. The absence of necrosis, atypia, and mitoses supported a diagnosis of leiomyoma. ER and PR positivity indicated hormonal responsiveness. Based on the gross and immunohistomorphologic features, the diagnosis of LPD was established. Gonadotropin-releasing hormone (GnRH) analogues may be used to downsize any unresected lesions, preventing potential complications.

Abstract

[AP-76] Uterine leiomyoma with bizarre nuclei co-existing with endometrial carcin: a rare case report

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Introduction

Leiomyoma is the commonest tumor among smooth muscle tumors of gynecological tract and its variants should be recognized. Leiomyoma with bizarre nuclei (symplastic leiomyoma) should be differentiated from leiomyosarcoma. In this case we had endometroid carcinoma and leiomyoma with bizarre nuclei together. Possibility of carcinosarcoma and leiomyosarcoma was excluded.

Case presentation

This is a case report of 67 years old postmenopausal women presented uterine fibroid as cervical polyp. Histopathology showed dual pathology comprising leiomyoma with bizarre nuclei characterized by presence of bizarre, and pleomorphic nuclei, mitosis less than 10/10HPF & absence of necrosis. Endometroid carcinoma with back-to-back arrangement of glands and lacking intervening stroma. A carcinoma was not infiltrating leiomyoma with bizarre nuclei but in close proximity with it. A diagnosis of leiomyoma with bizarre nuclei with endometroid carcinoma was given.

Discussion & conclusion

There were two main differentials in this case first leiomyosarcoma and other carcinosarcoma, both having poorer prognosis. Leiomyosarcoma and carcinosarcoma was excluded with the help of morphology and immunohistochemistry. Endometroid Carcinoma was seen in close proximity to leiomyoma with bizarre nuclei but not infiltrating it.

We report this case as there are very few case reports of the above two pathologies occurring simultaneously in the same patient.

Abstract

[AP-77] Disseminated Peritoneal Leiomyomatosis (DPL): diagnostic insights from a rare case.

Fatima Safdar, Anoshia Afzal, Aisha Memon.

Introduction

Disseminated Peritoneal Leiomyomatosis (DPL) is a rare, benign condition characterized by multiple smooth muscle nodules throughout the peritoneal cavity. It primarily affects women of reproductive age and is associated with hormonal influences and possible iatrogenic causes, especially following gynecologic surgeries. Though benign, DPL can mimic malignant conditions radiologically and macroscopically.

Case Summary

A 40-year-old woman presented with abdominal pain and irregular menstrual bleeding. Imaging revealed multiple peritoneal nodules. Surgery including total abdominal hysterectomy, bilateral salpingo-oophorectomy, and omentectomy was done. Grossly, numerous nodules were noted on the omentum and adnexa. Histology showed benign smooth muscle proliferation without atypia or mitosis. Immunohistochemistry was positive for smooth muscle markers (ASMA, Desmin, Caldesmon) and negative for inhibin and calretinin, confirming DPL.

Discussion and Conclusion

DPL is frequently misdiagnosed due to its resemblance to peritoneal malignancy. It should be considered in differential diagnoses, especially in women with a history of uterine fibroids or surgery. Treatment may include hormonal suppression and/or surgery, depending on symptoms and lesion extent. Histopathology remains the diagnostic gold standard. Increased clinical awareness is vital to avoid overtreatment and reduce patient anxiety. Regular follow-up is recommended due to rare but possible malignant transformation.

Abstract

[AP-78] Cystic granulosa cell tumor, adult-type in a 16-year-old woman; a diagnostic challenge

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Introduction

Adult-type granulosa cell tumor (AGCT) is the most common sex cord-stromal tumor. Differentiating cystic AGCT from a cystic follicle can be challenging due to overlapping gross features and denudation or flattening of the epithelial lining.

Case presentation

A 16-year-old nulliparous woman presented with hypermenorrhea and dull, aching pelvic pain for 1 month. Transabdominal sonography was performed and shown an anechoic multiloculated cystic mass at the left adnexa.

A left salpingo-oophorectomy was performed and shown a previously opened ovarian cyst measuring 8 x 6 x 2.5 cm. Cut sections revealed a multiloculated cyst with clear yellow fluid. The cyst wall was gray, white and up to 1.5 cm thickness. The surface was smooth and glistening.

Histological examination revealed multiloculated ovarian cyst with focal papillary projection. The epithelial lining was up to 12 cell layers of round to oval cells with pale nuclei, nuclear groove, and scanty cytoplasm. Invagination of cyst lining into wall as cord, and solid nests were observed. Call-Exner bodies were seen.

Discussion and conclusion

Although cystic AGCT is exceptionally rare in younger individuals, the presence of concerning clinical signs, symptoms, or suspicious histological features warrants thorough gross examination, adequate tumor sampling, and detailed histopathological analysis.

Abstract

[AP-79] A rare case of immature teratoma of the ovary with peritoneal gliomatosis in a filipino pediatric patient

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Introduction

Immature teratoma is the second most common malignant ovarian germ cell tumor frequently observed in young women. One-third of cases are associated with gliomatosis peritonei (GP). This report discusses the occurrence of immature ovarian teratoma with gliomatosis peritonei in an 11-year-old female in a tertiary government hospital in Bohol.

Case Presentation

The patient noted a right lower quadrant abdominal mass with distension for seven months. Imaging showed a large cystic abdominopelvic mass. Intraoperative frozen section of the left ovary was suggestive of a Mature Cystic Teratoma. However, permanent sections revealed a focus of neuroectodermal rosettes. Omental tissue showed multiple mature glial nodules that expressed positivity for glial fibrillary acidic protein, pancytokeratin and faint synaptophysin. The final diagnosis was Immature Teratoma, Grade 1, with Gliomatosis Peritonei. Patient received chemotherapy.

Discussion and Conclusion

Gliomatosis Peritonei is a rare condition with more than 100 cases reported in literature. The presence of GP can provide a diagnostic challenge. Extensive sampling and thorough examination are important to confirm its presence. The prognosis is favorable when the glial implants are mature. This is the first case encountered by our institution. Long-term follow-up is recommended to monitor for recurrence or metastasis.

Abstract

[AP-81] A tertiary hospital case study: intraplacental inflammatory myofibroblastic tumor in a 33-year old female.

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Introduction

Uterine Inflammatory myofibroblastic tumor (UIMT) is rare neoplasm of the female reproductive system with approximately 50% of IMTs exhibiting ALK rearrangement. Those arising from the placenta is an extremely rare occurrence with only nine reported cases.

Case Presentation

A 33-year-old G4P2 patient was admitted for hypertension and generalized edema. She delivered a live preterm baby girl. The intact 400-gram placenta revealed a 2.0 x 1.8 x 1.0 cm tan-white, solid, firm, well-defined intraplacental nodule. Microsection showed a benign, spindle cell mesenchymal neoplasm with focal nuclear atypia. Immunohistochemistry results were ALK (+), desmin (+), SMA (+), MCK (-), CD34 (-), CD45 (-) and patchy p16. The immunomorphology was consistent with an Intraplacental Inflammatory Myofibroblastic Tumor.

Discussion Conclusion

Intraplacental Inflammatory Myofibroblastic Tumor is a rare, benign neoplasm of the placenta. It may start in the uterus and spread to the placenta. Current diagnostic methods include histological examination and immunohistochemistry, with ALK gene rearrangement and protein expression providing evidence. This is the first documented case of Intraplacental Inflammatory Myofibroblastic Tumor at our institution. Maternal conditions and the tumor may have contributed to preterm birth. Early intervention is critical for optimal pregnancy outcome.

Abstract

[AP-83] Neonatal clinical correlates with placental histopathology and etiology of intrauterine growth retardation due to pre-eclampsia and idiopathic causes and comparison with normal controls.

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Background

Neonatal outcomes may get adversely affected in intrauterine growth retardation (IUGR) due to placental insufficiency.

Methods

We enrolled mother baby dyads, in diagnosed IUGR, either due to preeclampsia (PE) or idiopathic causes over 1 year. Term placentas were controls. Placental histopathology was classified according to the Amsterdam Placental classification.

Results

We enrolled 86 PE, 109 Idiopathic and 35 normal cases of which 56% delivered prematurely in idiopathic as compared to 85% in PE (p=<0.001). Oligohydramnios was significantly higher (p=0.046) in idiopathic (24%) as compared to PE (10.5%) though absent or reverse end - diastolic flow (A/REDF) were higher in PE (39.5% vs 22%, p= 0.011). Significantly higher (p=0.019) neonatal deaths occurred in idiopathic (8.2 %) as compared to PE (3.4%). Birth weight (p <0.001) , gestation (p <0.001) and head circumference (p=0.002) were significantly lower in PE as compared to idiopathic. Idiopathic group showed more severe linear growth restriction (<3rd percentile) p <0.003. Symmetric IUGR was significantly higher in idiopathic suggesting early onset IUGR (p=0.002). Placenta showed more infarctions (p=0.049) and syncytial knots (p<0.001) in PE . Placenta from control group were mostly normal.

Conclusion

Clinical outcomes were significantly different in various aetiologies of IUGR.

Abstract

[AP-84] Comparison of histopathological changes in the placenta in antenatally diagnosed Fetal growth retardation in Idiopathic and Preeclampsia cases and comparison to normal placenta

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Background

Placental abnormalities can lead to fetal growth retardation (FGR) which varies according to aetiology.

Methods

We examined placentas of FGR cases who had Preeclampsia (PE-FGR) and idiopathic FGR (I-FGR) over 1 year and their neonates weighing less than 2 kg. Term delivered placentas were controls. Placental histopathology was classified according to the Amsterdam placental classification.

Results

We enrolled 52 in PE-FGR, 62 in I-FGR and 35 in control group. The birth weights were comparable between I-FGR and PE-FGR group however gestation was significantly lower (p=0.016) in the PE-FGR group , 32.9 (2.9) weeks vs 34.2 (2.6) weeks in I-FGR group. Oligohydramnios was significantly higher in I-FGR (22/62; 35.5%) than PE-FGR group (8/52; 15%) (p = 0.025). Though placental weight was similar in 2 group, fetoplacental weight ratio was significantly lower in PE -FGR 4.5 (1.8) compared to I-FGR group 5.48 (2.28) (p=0.012) and normal cases 6.01(2.5) , p <0.001 . Most placental histopathology were similar in 2 groups except syncytial knots which were significantly higher (P=0.001) in PE -FGR (15/52, 28.8%) as compared to I-FGR , 3/62(4.8%) and all findings significantly differed from normal placenta.

Conclusion

FGR cases of various etiologies show different pathological and clinical outcomes probably due to different placental adaptations.

Abstract

[AP-85] Concurrent diagnosis of tubal ectopic pregnancy and ovarian seromucinous borderline tumour with microinvasion a case-based histopathological review

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Introduction

Seromucinous borderline tumours (SMBTs) are rare epithelial ovarian neoplasms often associated with endometriosis and composed of mixed Müllerian-type epithelium. Microinvasion is uncommon and lacks well-defined diagnostic criteria. Concurrent presentations with ectopic pregnancy are exceedingly rare.

Case Presentation

A 26-year-old woman presented with amenorrhea and a positive urine HCG test. Imaging revealed an empty uterus and a left ovarian complex cyst. Laparotomy revealed a right tubal ectopic pregnancy and a left ovarian cyst. Right salpingectomy and left ovarian cystectomy were performed. Histology confirmed the ectopic pregnancy. The ovarian cyst measured 10 cm and was unilocular with friable papillary excrescences lining the inner surface. Microscopy showed hierarchically branched papillae with variably oedematous stromal cores, prominent neutrophils, and an epithelial lining of mixed Müllerian-type cells. Unlike typical bland cytology, mild to moderate nuclear atypia was observed. Foci of small, confluent stromal invasion were identified, consistent with microinvasion. No endometriosis was seen.

Discussion and Conclusion

This case highlights the diagnostic challenge of SMBTs with atypical features and microinvasion. Careful histopathological evaluation is essential, particularly when features deviate from typical patterns. Recognition of such variants is important for accurate classification, risk assessment, and management.

ABSTRACTS

[IAP-86] Endometrial carcinoma in a patient with ovarian leydig cell hyperplasia: coincidence or hormonal causality?

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Introduction

Leydig cell hyperplasia (LCH) is a rare cause of hyperandrogenism in postmenopausal women. It is characterized by clusters of Leydig cells within the ovarian stroma, typically without forming a distinct mass. Although LCH is often incidental, its hormonal activity can have significant clinical consequences. The coexistence of LCH with endometrial carcinoma is extremely rare and raises the possibility of a hormonal link.

Case presentation

A 77-year-old postmenopausal woman presented with vaginal bleeding. She also had a long-standing history of hirsutism and hoarseness of voice. Ultrasonography revealed a thickened endometrium with a fundal polyp. She underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. Grossly, the endometrium was thickened and irregular with a polyp. Both ovaries appeared unremarkable macroscopically. Histology revealed endometrioid-type endometrial carcinoma (FIGO grade 1) with less than 50% myometrial invasion. Background endometrium showed the foci of atypical hyperplasia within atrophic and cystically dilated glands. Foci of Leydig cell hyperplasia were identified in both ovaries.

Discussion and conclusion

Although this coexistence may be incidental, the patient's history of hirsutism and hoarseness of voice suggests possible hormonal involvement. Lack of preoperative androgen level assessment limits the ability to evaluate the hormonal contribution. Further studies are needed to explore this rare association.

Abstract

[AP-87] Atypical presentation of thoracic endometriosis mimicking metastatic disease

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Introduction

Thoracic endometriosis (TE), a rare extra pelvic manifestation of endometriosis, can involve the pulmonary parenchyma or pleura.

Case presentation

We present the case of a 38-year-old woman initially evaluated for uterine masses, concurrently presenting with lesions in the right atrium, right ventricle, and a solitary pulmonary nodule. Initial abdominal ultrasonography suggested uterine sarcoma with atypical leiomyoma as a differential diagnosis. The presence of these thoracic lesions, initially raising concern for metastatic dissemination from the uterine pathology, significantly complicated surgical planning and prompted a referral to the cardiovascular division for comprehensive assessment. A decision was made to prioritize the excision of the thoracic masses before the uterine pathology. Histopathological examination of the pulmonary lesion confirmed the presence of endometrial tissue, thereby excluding a diagnosis of sarcoma and indicating TE.

Discussion and conclusion

This case highlights the critical importance of considering rare conditions such as TE in young women with suspected or confirmed pelvic endometriosis, particularly with atypical or multifocal mass presentations. It also underscores the indispensable role of multidisciplinary collaboration among clinicians, surgeons, radiologists, and pathologists for accurate diagnosis and optimal management. We advocate for mandatory immunohistochemical evaluation in such complex cases to enhance diagnostic precision.

Abstract

[AP-88] Incidental finding of an uncommon ovaraian epithelial tumour -benign brenner tumour

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Introduction

Brenner tumor (BT) is a relatively uncommon surface epithelial tumors of the ovary accounting less than 2% of all ovarian tumors. They can be benign, borderline or malignant. Definitive diagnosis is by histopathological examination.

Case report

A 50-year female presented with menorrhagia and lower abdominal pain. USS abdomen shows adenomyosis. Total abdominal hysterectomy and bilateral salphingo oophorectomy was performed. Macroscopically cut opened uterus revealed white colored masses with thickened myometrium. Right ovary showed an unilocular cyst measuring 20x10x10mm with solid and cystic areas without capsular breach. Both fallopian tubes and left ovary appear normal.

Right ovarian cyst shows nests and cystic areas. Nests are lined by transitional cells with oval nuclei and longitudinal nuclear grooves. Multiple cysts are lined by mucinous epithelium. It was diagnosed as a benign Brenner tumor (BBT). Uterus shows leiomyomata and adenomyosis.

Discussion

Surgery is the main stay of treatment for BBT. Since BT is rare; descriptive statistics are less. So, reporting every case of BT is more use and helpful not only for current clinicians but also for the future clinicians.

Abstract

[AP-89] Primary endometrial gastric/ gastrointestinal type mucinous adenocarcinoma: a case report.

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Background:

Endometrial gastric/gastrointestinal-type mucinous adenocarcinoma (EmGA) is a rare condition. Patients present with bleeding. Tumors are mucin-secreting with basally located nuclei resembling HPV-independent gastric-type adenocarcinoma of the cervix. Role of Immunohistochemistry is based on the exclusion of mimics, especially endocervical carcinoma. Differentiation from metastatic gastrointestinal tumors is based on the clinical and radiological absence of gastrointestinal tumors. Due to the rarity of the entity, molecular characteristics are not well studied, some cases, show mismatch repair deficiency. Prognostically, tumor behavior is stage-dependent.

Case report:

We reported a case of a 60-year-old female patient, presented with bleeding. Histologically, endometrium showed endocervical-like mucin-secreting columnar epithelial cells with glandular confluence of no atypia; reported as endocervical glandular hyperplasia. A hysterectomy was done, endometrium showed a neoplastic lesion with glands, papillary projections, and glandular complex structures, lined by mucin-secreting columnar epithelial cells with basally located nuclei and no cytologic atypia, infiltrating less than half of myometrial thickness with no involvement of adnexa, serosal, cervix, or parametrium. The cervix was completely processed to exclude cervical primary, with no tumor detected. Tumor was positive for CK7, focally positive for CEA, patchy positive for P16, negative for ER, PR, CK20, CDX-2 and vimentin. KI-67 showed a proliferation index of 15 %. Screening of the GIT shows no evidence of tumors. EmGA diagnosis was made, with a FIGO stage of 1A.

Abstract

[AP-93] Genetic diversity of salivary gland carcinoma NOS

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Background:

Salivary gland carcinoma not otherwise specified (NOS), which replaces the previous term "adenocarcinoma NOS," is a diagnosis of exclusion in the WHO 5th edition. It encompasses tumors with overlapping features that defy current subtype definitions. However, the extent of genetic diversity within this group remains underexplored.

Objectives:

This study investigates whether carcinomas classified as NOS represent a heterogeneous pool of unclassifiable entities or a distinct group with shared or diverse molecular characteristics.

Materials and Methods:

NOS cases were selected from a cohort of surgically resected salivary gland carcinomas (2021–2024). Immunohistochemistry, fluorescence in situ hybridization, and next-generation sequencing were performed. Genetic profiles were compared with those of defined subtypes, including salivary duct, secretory, acinic cell, myoepithelial, hyalinizing clear cell, and epithelial-myoepithelial carcinomas.

Results:

NOS tumors exhibited diverse genetic alterations. Recurrent HRAS p.Q61K mutations were shared with myoepithelial and epithelial-myoepithelial carcinomas. TP53 and PIK3CA mutations were associated with high-grade features. Some NOS cases shared BRCA2 or ARID1A mutations with myoepithelial carcinomas.

Conclusions:

Salivary gland carcinoma NOS is not merely a diagnostic placeholder, but a genetically diverse group with recurrent alterations that partially overlap with, yet differ from, established subtypes. Molecular profiling supports rethinking NOS as a biologically relevant classification.

Abstract

[AP-95] Co-existence of schwannoma and meningioma in a young patient with neurofibromatosis type 2; a case report

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Introduction

Neurofibromatosis type 2 (NF2) is a rare hereditary autosomal dominant syndrome, characterized by the development of multiple central and peripheral nervous system neoplasms. Concurrent Schwannoma and Meningioma is a rare, yet known happening of this syndrome. Moreover, though these lesions are benign, they are however associated with increased morbidity owing to their diverse locations and an increased potential to grow in size.

Case presentation

We present here a unique case of a young male patient with NF2 and a previous history of a hybrid nerve sheath tumor, now presenting with progressive visual impairment and headache. The radiological assessment showed multiple distinct intracranial lesions. Histopathological evaluation following surgical excision revealed Mixed Schwannoma and Meningioma, CNS WHO grade 1. The patient did well after surgery.

Discussion and conclusion

This case emphasizes the importance of early recognition of NF2 and its association with the presence of multiple tumors in an individual. A specific underlying pathogenesis of such hybrid tumors with different histogenesis remains unclear.

Abstract

[AP-96] Oncocytic cystadenoma with focal mucinous differentiation in the parotid gland: a rare case report

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Introduction

Oncocytic cystadenoma is a rare benign salivary gland tumour, most commonly arising in the parotid gland. Histologically, it features cystic spaces lined by oncocytic epithelium, occasionally showing papillary architecture and mucinous differentiation, which may mimic other cystic salivary neoplasms.

Case presentation

A 66-year-old male presented with a slowly enlarging, painless swelling in the right parotid region. Ultrasound showed a 2.3 cm complex cystic lesion. FNAC revealed oncocytic cells in an inflammatory background. Superficial parotidectomy was performed. Grossly, a bilocular cyst filled with mucinous material was identified. Microscopy showed multilocular cysts lined by one to multiple layers of polygonal to columnar oncocytic epithelium with focal mucinous change. The adjacent parenchyma showed oncocytic hyperplasia with chronic inflammation. No mitoses or necrosis were present. Immunohistochemistry showed basal cell positivity for p63.

Discussion and conclusion

The main differential diagnosis was low-grade mucoepidermoid carcinoma, especially given the mucinous component. However, this was excluded by the presence of a continuous basal cell layer highlighted by p63 staining. This case underscores the importance of histopathology and immunohistochemistry in differentiating oncocytic cystadenoma from its malignant mimics to guide appropriate management.

Abstract

[AP-98] Gallbladder metastatic undifferentiated nasopharyngeal carcinoma presenting as gangrenous cholecystitis

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Introduction

Although undifferentiated nasopharyngeal carcinoma (NPC) can metastasize to various organs, gallbladder involvement is exceedingly rare. Notably, presentation as gangrenous cholecystitis at initial diagnosis has not been previously reported.

Case presentation

An 72-year-old woman underwent cholecystectomy for gangrenous cholecystitis. Histology revealed an undifferentiated carcinoma arranged in nests and sheets, with a dense lymphoplasmacytic infiltrate. No gallbladder dysplasia or primary carcinoma was identified. Imaging showed widespread metastases to the bone, adrenal glands, and liver. Immunohistochemistry demonstrated positive for CK and p40, and negative for LCA, S100, CK7, CK20, and p63. EBER-ISH was positive, suggesting a nasopharyngeal origin. Subsequent MRI revealed a nasopharyngeal mass, and biopsy confirmed undifferentiated NPC.

Discussion and conclusion

EBV-associated malignancies, particularly undifferentiated NPC, have a high incidence in certain geographic regions, notably Southeast Asia. In this case, histologic features-including undifferentiated cells with dense lymphoplasmacytic infiltration and EBER-ISH positivity—were key in suggesting a nasopharyngeal origin. This case highlights the importance of considering NPC in the differential diagnosis of undifferentiated carcinoma presenting at uncommon metastatic sites, especially in endemic areas, even when the primary tumor is not clinically evident. Awareness of such atypical presentations is critical to avoid misdiagnosis and timely enable appropriate systemic therapy.

Abstract

[AP-99] Impact of the pattern of Perineural invasion and perineural invasion density on prognosis of oral squamous cell carcinoma

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Background

Various morphological patterns of PNI exist. PNI density is defined as number of PNI foci per mm2 of the tumor area.

Objectives

To evaluate the prognostic significance PNI density, and morphological patterns of PNI in oral squamous cell carcinoma.

Materials and Methods

Out of 148 OSCC, PNI was found in 67 cases. The number (foci), location (intra/ extratumoral), patterns, size of the nerve involved and PNI density were assessed. Univariate and multivariate analyses, Cox regression models, and Kaplan-Meier survival curves were constructed, and statistical significance was ascertained using the Log-rank method. Subgroup analysis was done for early-stage OSCC (pT1/2N0M0).

Results

The number of PNI foci was found to have a poorer prognostic outcome in terms of OS (p=0.021) and DFS (p=0.003). ROC analysis revealed that PNI density is a weak predictor of survival. On Kaplan-Meier curves, a poorer outcome was noted for cases with PNI density>0.037/sq mm; however, no significance was achieved for the same (p=0.203). Amongst the morphological patterns, neural permeation emerged as a significant adverse prognostic factor (p=0.004). Subgroup analysis for early-stage OSCC failed to reveal any statistical significance between the PNI-related parameters and survival.

Conclusions

Two parameters, number of PNI foci and neural permeation, impart a poor prognosis to OSCC, whereas PNI density and other morphological patterns of PNI do not influence the overall outcome.

Abstract

[AP-100] Mimicking anaplastic thyroid carcinoma: a diagnostic pitfall in atypical follicular adenoma with bizarre nuclei - a rare case report and literature review

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Introduction

Follicular adenoma with bizarre nuclei is an extremely rare thyroid lesion, with a reported incidence of only 0.001%. Its cytologic atypia may mimic high-grade malignancies, particularly anaplastic carcinoma, potentially leading to misdiagnosis and overtreatment.

Case presentation

We report a case of a 48-year-old female with a grade I goiter. Histology revealed a well-circumscribed, encapsulated follicular lesion composed of uniform follicles. Scattered throughout were clusters of epithelial cells exhibiting markedly enlarged, pleomorphic, and hyperchromatic nuclei with irregular membranes—consistent with follicular adenoma with bizarre nuclei.

Discussion and conclusion

This case illustrates the diagnostic challenge posed by follicular adenoma with bizarre nuclei. Despite the lesion appearing benign on ultrasound, cytologic findings were highly atypical and strongly suggested a malignant process, raising concern for anaplastic carcinoma. This discordance between imaging and cytology emphasizes the potential for misdiagnosis and overtreatment if histopathological correlation is not pursued. Definitive diagnosis was established through surgical excision and thorough histologic evaluation, which confirmed the lesion as a benign follicular adenoma with scattered bizarre nuclei, without features of malignancy or invasion. The patient remained clinically stable with no evidence of recurrence on follow-up. This case reinforces the importance of integrating imaging, cytologic, and histologic data to avoid unnecessary aggressive treatment in such rare but deceptively atypical thyroid lesions.

Abstract

[AP-102] Adenoid cystic carcinoma with high grade transformation: an uncommon phenomenon.

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Introduction

Adenoid cystic carcinoma (AdCC) is a common salivary gland malignancy. High-grade transformation (HGT) is an uncommon, histopathologically diagnosed phenomenon with accelerated clinical course and high propensity for lymph node metastasis.

Case Presentation

A 59 year old female presented with right facial swelling. CECT showed an expansile mass eroding maxillary bone with no significant cervical lymphadenopathy. Histopathological examination of a partial maxillectomy specimen revealed a cribriform and tubular architecture composed of monomorphic basaloid cells with abrupt transition to solid islands of pleomorphic cells containing prominent nucleoli, increased mitoses and central necrosis. P63 confirmed presence of myoepithelial differentiation in conventional areas and absence in solid islands. CD117 was diffusely positive in both components. Her2 was negative. Ki67 was 47% in solid areas and 18% in conventional areas. No tumour recurrence was seen on follow-up.

Discussion and conclusion

HGT represents dedifferentiation of AdCC into a high grade carcinoma typically a poorly differentiated adenocarcinoma or anaplastic carcinoma. Loss of myoepithelial differentiation, presence of squamoid and micropapillary areas, nuclear pleomorphism and high proliferation distinguish transformed areas. Presence of a conventional AdCC component aids distinction from tumours like Salivary duct carcinoma. Thorough sampling is crucial to identify HGT as elective neck dissection will be considered.

Abstract

[AP-103] Co-Existence of papillary thyroid carcinoma in a thyroglossal duct cyst. a patient presented with nasal septal perforation: case report.

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Background: Thyroglossal duct cyst (TGDC) is the most common cervical congenital cystic lesion. Although TGDCs are prevalent, papillary thyroid carcinoma (PTC) arising in a thyroglossal cyst is a rare finding, accounting for ~1% of thyroglossal cyst cases. PTC accounts for more than 90% of malignancies arising in TGDC, followed by mixed papillary and follicular carcinoma. Diagnosis of PTC in a TGDC is usually made postoperatively (cyst excision and Sistrunk procedure), via histological examination, and almost all cases have an excellent prognosis.

Case Report: We reported a case of papillary thyroid carcinoma arising in a thyroglossal duct cyst of a 60-year-old male patient, who initially presented with nasal obstruction, whistling sounds when breathing, nosebleeds, and crusting. Ear, Nose, and Throat (ENT) examination revealed a nasal septal perforation at the posterior and superior edge. During examination, a cystic lesion was detected at the midline of the neck, which was clinically diagnosed as TGDC. Surgical repair was performed for the nasal septal perforation, and a Sistrunk procedure was performed for the TGDC. Sent for histopathology, the debridement of perforation as well as the cyst, the diagnosis of the latter was TGDC with secondary involvement by PTC, limited to the wall of the cyst. The thyroglossal duct was completely excised to the hyoid bone, and the patient's follow-up showed no evidence of recurrence or metastasis.

Conclusion: Diagnosis of malignancy in TGDC is a rare clinical event that can be missed due to its rarity. PTC is the most common malignancy arising in TGDC, with the Sistrunk operation usually sufficient for treatment as long as the malignancy is limited to the cyst wall; otherwise, total thyroidectomy might be recommended.

Abstract

[AP-104] The proteome defined key role of GALNT7 in thyroid tumor harboring DICER1 mutation

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Backgroud

DICER1-mutated thyroid tumors exhibit macrofollicles, small papillae, and atrophic follicles—features distinguishing them from other thyroid neoplasms—and may associate with germline DICER1 alterations, indicating DICER1 syndrom.

Objectives

In this study, we analyzed 56 Chinese patients with those morphological features to explore their clinical, genetic and proteomic features.

Materials and methods

Genetic testing of 56 samples revealed DICER1 mutation in 28 cases.

Results

Somatic missense mutations in the RNase IIIb domain of the DICER1 gene, predominantly occurring in exon 25 (19/28), with the p.E1813 mutation being the most common (14/19). Proteomic analysis identified 82 proteins significantly high-expressed and 24 proteins significantly low-expressed in thyroid tumors with DICER1 mutation comparing with those wild type, which revealed correlations between DICER1 mutations and physiological processes, including glycosylation. KEGG pathway analysis highlighted significant enrichment of DICER1 mutations in pathways associated with the biosynthetic pathways of diverse N-glycans and O-glycans. The levels of GALNT7 were markedly increased in DICER1-mutant thyroid tumors, which is one of the key enzymes involved in the initiation of glycosylation. The molecular function is notably enriched in glycosyltransferase activity.

Conclusion

Our study indicates DICER1 mutations may upregulate GALNT7, thereby activating glycosylation processes.

Abstract

[AP-105] A case of CD5-positive diffuse large b-cell lymphoma harboring myd88 and pim1 mutations of the adrenal gland diagnosed in a patient admitted for acute hepatitis

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Introduction

Lymphoma, a cancer of the lymphatic system, can occasionally affect the adrenal glands, though it is rare. Diagnosing it poses a challenge as its symptoms often mimic those of more common illnesses, such as acute hepatitis, which typically presents with jaundice and elevated liver enzymes.

Case presentation

A 67-year-old female was admitted with myalgia and fever, suggestive of acute hepatitis. Laboratory tests showed elevated liver enzymes, bilirubin, prolonged prothrombin time, and thrombocytopenia. Imaging, including ultrasound and liver dynamic CT, revealed an enlarged liver with a hypoechoic lobulated lesion in the right suprarenal area and lymphadenopathy. Differential diagnoses considered right adrenal lymphoma and other adrenal tumors. Ultrasonography-guided biopsies confirmed CD5+ diffuse large B-cell lymphoma (DLBCL), with bone marrow involvement. Next-generation sequencing (NGS) revealed mutations in MYD88, PIM1, ALK, and HIST1H1E, along with complex chromosomal abnormalities.

Discussion and conclusion

This case underscores the necessity of considering lymphoma in the differential diagnosis of acute hepatitis, especially with atypical imaging findings. CD5+ DLBCL, making up 5-20% of cases, is linked to poor prognosis and higher recurrence under R-CHOP. The MYD88 and PIM1 mutations in this case align with the aggressive nature of CD5+ DLBCL. Early detection and intervention significantly impact patient outcomes.

Abstract

[AP-107] Diagnostic pitfall in BRAF mutation analysis in classic hairy cell eukemia: discordant findings of molecular and phenotypic/morphologic presentation

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Introduction

Hairy-cell leukemia (HCL), as classified by the WHO, is an uncommon B-cell neoplasm, typically identified by distinct cytomorphology, immunophenotype, and the hallmark BRAF V600E mutation present in 95% of all cases. However, diagnostic challenges may arise when these features are discordant.

Case Presentation

We report two unusual cases:

Case 1: An 87-year-old male presented with absolute lymphocytosis and moderate thrombocytopenia. Peripheral blood and bone marrow smears revealed classic hairy cell morphology. Flow cytometry and immunohistochemistry confirmed a typical HCL immunophenotype. However, BRAF mutation analysis (PCR and SNaPShot Multiplex) was negative for V600E and other exon 15 variants. Cytogenetic studies revealed isolated Y chromosome loss, likely age-related.

Case 2: A 65-year-old male presented with mild macrocytic anemia, mild leukopenia, and moderate thrombocytopenia, raising suspicion for myelodysplasia. Flow cytometry identified a small clonal B-cell population lacking CD5, CD10, CD25, and CD103. Bone marrow biopsy revealed hypercellularity with 60–70% abnormal B cells, without classic HCL morphology or immunophenotype. Cytogenetic studies revealed normal karyotype. However, the BRAF V600E mutation was detected.

Conclusion

These rare presentations highlight the need to integrate clinical, morphological, immunophenotypic, and molecular data in HCL diagnosis. Awareness of unusual cases is essential to avoid diagnostic pitfalls and inappropriate patient management.

Abstract

[AP-110] Extranodal NK/T-cell lymphoma with aberrant helper t-cell phenotype

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Introduction

Extranodal natural killer/T-cell lymphoma (ENKTL) is a rare malignancy of NK- or T-cell origin that typically exhibits a cytotoxic phenotype. Although CD4 expression has been rarely reported in ENKTL, cases exhibiting a true helper T-cell phenotype have not been previously documented. Here, we report an extremely unusual case of ENKTL demonstrating a helper T-cell phenotype.

Case presentation

An 80-year-old man presented with swelling of the left temporal area. Physical examination revealed a mildly erythematous, elevated lesion measuring 3-4cm in diameter. Head and neck CT showed diffuse swelling of the left temporal area with thickening of the temporal muscle, raising suspicion for myositis or cellulitis. An excisional biopsy was performed. Histologic examination revealed a diffuse infiltrate of medium to large atypical lymphoid cells. Immunohistochemically, the neoplastic cells were diffusely positive for CD3, CD4, CD5, and Epstein-Barr-virus (EBV) by in situ hybridization, but negative for CD8 and CD56. Cytotoxic markers (granzyme B and TIA-1) were negative, while helper T-cell-associated markers PD-1 and BCL6 showed weak positivity. T-cell receptor (TCR) gene rearrangement tests revealed monoclonality for both TCR-β and TCR-γ.

Discussion and conclusion

Although ENKTL is classically defined by its cytotoxic phenotype, this case shows that a helper T-cell phenotype can rarely occur. The underlying mechanisms driving helper T-cell phenotype remain unclear and require further study. Given the potential implications for prognosis and therapeutic strategy, additional molecular studies within patient cohorts are needed to better characterize this uncommon variant of ENKTL.

Abstract

[AP-111] A case report and comprehensive review of splenic sclerosing angiomatoid nodular transformation

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Introduction

Sclerosing angiomatoid nodular transformation (SANT) of the spleen is a rare and benign vascular lesion of unknown cause, predominantly affecting middle-aged women. Its symptoms are often vague, which makes accurate diagnosis challenging prior to surgical intervention.

Case presentation

A 28-year-old woman with a prior diagnosis of hepatic perivascular epithelioid cell tumor, for which she underwent right hepatectomy at age 24, presented for routine surveillance imaging. An abdominal computed tomography scan revealed a well-defined splenic mass measuring 2.9 cm in greatest dimension, raising suspicion for a metastatic disease. A therapeutic splenectomy was performed. Macroscopically, there was a 2.9 x 2.5 x 2 cm well-defined, firm, whitish-tan mass with focal hemorrhage, located 1.5 cm from the splenic hilum. The mass was at the lower pole of the spleen. Histopathology revealed irregular shaped vascular spaces lined by endothelial cells within a fibrosclerotic stroma. These morphological features were consistent with SANT.

Discussion and conclusion

Splenic SANT is an uncommon, non-neoplastic, reactive vascular lesion that warrants consideration of non-hematologic splenic neoplasms. Due to its nonspecific radiological appearance and the absence of reliable biomarkers, splenectomy remains the preferred approach for both diagnosis and management. Definitive identification relies on thorough histopathological evaluation.

Abstract

[AP-112] Fibrin-associated large b-cell lymphoma presenting in a right scrotal encysted hydrocoele

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Introduction

Fibrin-associated large B-cell lymphoma (FA-LBCL) is a rare, under-recognised entity arising in chronic fibrin deposition, often within natural or acquired anatomical sites, including cystic and pseudocystic cavities. FA-LBCL is typically incidental and considered indolent, despite high-grade histological features.

Case presentation

We report FA-LBCL incidentally identified in a right scrotal encysted hydrocoele of at least 6 years' duration in an elderly male. Grossly, a 9.5 cm lobulated cystic mass containing altered blood was noted. Histology showed a fibrotic cyst wall with adherent blood clot and fibrin on the inner surface. A band-like infiltrate of atypical medium to large lymphoid cells was confined to the layer of fibrin and inner surface of the cyst wall. These showed nuclear atypia and focal mitotic activity. Immunohistochemistry demonstrated strong diffuse positivity for LCA, CD20, PAX5, CD79A, MUM1, CD30, and EBER-ISH. Ki-67 proliferation index was >80%. CD3, HHV8, and light chains were negative.

Discussion and conclusion

The patient remains well, with negative staging post-excision. Differentials for FA-LBCL include other EBV-associated large B-cell lymphomas such as diffuse large B-cell lymphoma associated with chronic inflammation. However, FA-LBCL lacks mass formation and shows confinement to fibrin. Recognition is essential to avoid overtreatment, as FA-LBCL lacks systemic progression.

Abstract

[AP-115] Acute myeloid leukemia and plasma cell myeloma in a 38-year-old male patient: a diagnostic challenge

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Introduction

Synchronous presentation of acute myeloid leukemia and plasma cell myeloma in bone marrow is a rare occurrence. Herein, we report a concurrent case of acute myeloid leukemia and plasma cell myeloma in therapy-naïve patient.

Case presentation

A 38-year-old male presented with complaints of fatigue and gum bleeding. Peripheral hematologic analysis revealed anemia, leukocytosis, thromboocytopenia, and increased number of blasts. Bone marrow aspiration and trephine biopsy confirmed acute leukemia with increased plasma cells exceeding 10%. Immunophenotyping showed positivity for CD 33, CD 36, HLA-DR, CD 14 and confirmed the diagnosis AML M5b with concomitant plasma cell proliferation. Immunofixation demonstrated a biclonal gammopathy involving IgM kappa and IgG kappa. Immunohistochemistry showed positivity for MPO, CD117, CD138, negativity for CD79a, CD20, CD3, TDT, CD34, and kappa light chain restriction. The patient was diagnosed with synchronous acute myeloid leukemia and plasma cell myeloma in the absence of prior therapy.

Discussion and conclusion

The co-occurrence of two distinct clonal hematologic malignancies is a rare phenomenon. Accurate diagnosis requires a comprehensive assessment incorporating bone marrow aspiration, trephine biopsy, immunophenotyping, immunohistochemistry, and immunofixation assays. This case highlights the importance of distinguishing between reactive plasmacytosis and true clonal plasma cell neoplasms in patients with hematologic malignancies.

Abstract

[AP-116] Indolent t-lymphoblastic proliferation versus t-lymphoblastic lymphoma: a diagnostic challenge

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Introduction

Indolent T-lymphoblastic proliferation (iT-LBP) is an extrathymic non-clonal proliferation of immature T lymphoblasts. Diagnosis requires integration of histologic, immunohistochemical and molecular studies. We report the first case of iT-LBP in Vietnam, highlighting significant diagnostic challenges.

Case presentation

A 47-year-old woman presented with a right submandibular mass gradually enlarging over one year. She had no significant medical history, B symptoms, or abnormal CBC. The excised lymph node shows preserved architecture, small irregular follicles, and regressed germinal centers. A proliferation of small to medium lymphoid cells with immature chromatin, inconspicuous nucleoli, frequent mitoses, no atypia, was observed partly in the subcapsular region and predominantly in the interfollicular areas. These cells are positive for CD3, TdT, CD10, CD1a, and CD117 (subset), with intact T-cell markers, and negative for CD34 and cytokeratin. Ki-67 proliferation index is 90% in these cells. T-cell receptor gene rearrangement by PCR reveals a polyclonal pattern. The patient remains disease-free.

Discussion and conclusion

The absence of thymic tissue and clonal TdT+/CD3+ T cells, coupled with preserved architecture and an indolent course, supports a diagnosis of iT-LBP. This case underscores the importance of integrating molecular studies, particularly TCR analysis, to distinguish iT-LBP from T-LBL and to avoid misdiagnosis and overtreatment.

Abstract

[AP-117] CD138-negative plasma cell myeloma mimicking vascular sarcoma: a diagnostic pitfall

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Introduction

Plasma cell myeloma typically expresses CD138, a key diagnostic marker. However, rare CD138-negative cases can mimic other malignancies, leading to diagnostic difficulties.

Case presentation

A 76-year-old man presented with a left femur fracture. Imaging revealed osteolytic lesions in the femur and ischium. Histology showed large epithelioid cells with prominent nucleoli, stippled chromatin, amphophilic cytoplasm, and frequent mitoses. Immunohistochemistry was negative for CD138, LCA, CD20, CD3, cytokeratin, and CD30, but diffusely positive for vimentin and CD31, initially suggesting vascular sarcoma. However, additional endothelial markers (CD34, ERG, D2-40) were negative. Urine immunofixation later demonstrated kappa light chain restriction, and in situ hybridization confirmed strong kappa expression. The final diagnosis was CD138-negative plasma cell myeloma. The patient is currently receiving bortezomib and lenalidomide chemotherapy.

Discussion and conclusion

CD138-negative myeloma is rare and may mimic sarcomas or lymphomas. These cases can show stem cell–like properties, treatment resistance, and poor prognosis. Accurate diagnosis requires a combination of morphology, extended immunophenotyping, in situ hybridization, and clinical correlation. Awareness of this variant is essential to avoid misdiagnosis and guide appropriate treatment.

Abstract

[AP-118] Composite lymphoma with classic hodgkin lymphoma and follicular lymphoma, a very rare entity

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Introduction

Composite lymphoma (CL) defined as two or more morphologically and immunophenotypically distinct lymphomas or lymphoid neoplasms that occur in the same site. These cases are very rare with incidence ranging from 1% to 4% worldwide. Among those CL composed of Hodgkin lymphoma with non-Hodgkin is extremely rare.

Case report

A 47-year-old female presented with generalized lymphadenopathy without any constitutional symptoms.

Axillary lymph node sent for histology showed completely effaced architecture with predominant follicular pattern. The follicles are of same size wit attenuated marginal and mantle zones. Tingible body macrophages are not seen.

In parafollicular region large binucleate cells with prominent nucleoli and eosinophilic cytoplasm residing in lacunae were identified resembling Reed Sternberg cells. Mitoses or necrosis were not evident.

Immunohistochemically neoplastic cells were positive for CD 20, but large cells were negative. Germinal centers were positive for BCL2 and CD10.Large cells were positive for CD15 and CD30.Ki67 was 48%.

Features were compatible with concurrent occurrence of Follicular lymphoma and Classic Hodgkin Lymphoma.

Discussion

The recognition of CL is important to asses prognosis and outcome of the patient. Immunophenotyping, cytogenetics and gene rearrangement analysis are all important elements in the process of deciding the clonality of patient which currently unavailable in government sector.

Abstract

[AP-119] A rare case of myeloid sarcoma

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Introduction

Myeloid sarcoma (MS) is a tumoral mass composed of mature or immature myeloid blasts in extramedullary anatomical location.MS occurs denovo or in in association with Acute myeloid leukemia (AML), Myeloproliferative neoplasia or myelodysplastic syndrome. Though MS is common in pediatric AML less frequently seen in adults accounting for 0.25% and occurrence in lymph nodes in about 35%

Case report

A 37-year-old female previously diagnosed with AML presented with lymphadenopathy in mandibular region. H&E of the lymph node showed completely effaced architecture with sheets of monomorphic medium sized cells with vesicular nuclei, conspicuous nucleoli and moderate eosinophilic cytoplasm. Mitotic activity was brisk. Necrosis or extra nodal extension were not noted.

Neoplastic cells were strongly positive for MPO, CD68 and weakly positive for CD117.They were negative for CD3 and CD20.

Discussion

MS should be differentiated from lymphoma particularly from Diffuse large B cell lymphoma lymphoblastic lymphoma and Burkitt lymphoma. Since treatment is different in each category mandatory to differentiate MS from others. Studies concerning the prognosis and therapy response limited,but generally, treats with induction of chemotherapy. However, survival rates are very low with 5 year survival rate of 15%.

Abstract

[AP-122] Adult hepatoblastoma: a histopathological challenge in the absence of classical features

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Introduction

Hepatoblastoma represents the most prevalent malignant liver neoplasm in early childhood, especially in patients under five years of age. In adults, however, it remains an exceptionally rare entity and has historically been misclassified as other types of hepatic tumors.

Case presentation

A 31-year-old woman was incidentally found to have a 34×28mm hepatic nodule on imaging during a routine health checkup. MRI revealed arterial phase hyperenhancement with delayed washout. Serum analysis showed positive HBsAg and markedly elevated AFP (>1000 ng/mL). Histological examination showed solid nests and acinar-like structures composed of small tumor cells with a high nuclear-to-cytoplasmic ratio, scant indistinct cytoplasm, and angulated to oval nuclei with prominent nucleoli. Pseudo-rosettes and occasional papillary patterns were present. Brisk mitotic activity was noted. Immunohistochemistry showed positivity for CK19, pan-cytokeratin, and alpha-fetoprotein, while Glypican-3 and HepPar-1 were negative. Notably, beta-catenin showed membranous and cytoplasmic staining without nuclear localization, a finding uncharacteristic of classic hepatoblastoma. Given the imaging, AFP, and histology, HCC and NET are key differentials that must be ruled out.

Discussion and conclusion

This case highlights the diagnostic challenge of adult hepatoblastoma in the absence of classical histologic and immunohistochemical features. Awareness of its immunophenotypic variability is essential to avoid misdiagnosis in atypical adult liver tumors.

Abstract

[AP-124] Histological features of measles pneumonia in a postmortem lung sample collected by minimally invasive tissue sampling (MITS) technique; a case report from CHAMPS project.

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Introduction

Histological findings of measles pneumonia in lung tissue obtained by minimally invasive tissue sampling (MITS) technique from an infant died of an unknown cause, after the consent from the parents.

Case Presentation

MITS was done on a 08-month-old male who died in a government hospital within the catchment area of an ongoing, internationally funded "Child Health and Mortality Prevention Surveillance" (CHAMPS). It is under 5 mortality surveillance which collects clinical data, verbal autopsy and laboratory samples (histopathology, microbiology & PCR) by MITS for molecular, microbiological and histological evaluation. Histological examination of lungs in our case revealed diffuse alveolar damage with intra alveolar multinucleated giant cells containing cytoplasmic and nuclear eosinophilic inclusions. Based on these findings, measles pneumonia was the favored diagnosis. TAC-PCR results from lung, CSF and nasopharyngeal swab were positive for Measles.

Conclusion

This report emphasizes the value of pathological input in determining the cause of death and highlights measles pneumonia as an important cause of child mortality. MITS is a relatively accurate, technically feasible and more acceptable tool to assess the cause of death, particularly in low resource settings.

Abstract

[AP-125] A comparative study of hematoxylin and eosin staining quality in histopathological specimens with and without the clearing process

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Background

Xylene is widely used as a clearing agent in hematoxylin and eosin (H&E) staining of histopathological specimens. However, its toxic and volatile nature raises significant health and environmental concerns. This study aims to compare the staining quality between the conventional xylene-based clearing method and a room-temperature air-drying technique that excludes xylene.

Objectives

To compare the quality of H&E staining between xylene-based clearing and xylene-free air-drying methods, and to evaluate the feasibility of drying as a safer, more sustainable alternative in histopathology.

Materials and Methods

A comparative laboratory-based experimental design was conducted using formalin-fixed, paraffin-embedded (FFPE) tissue blocks of appendix, skin, and uterine leiomyoma. Sixty slides were prepared and stained using both methods, then evaluated for staining quality on days 1, 7, and 30 under light microscopy at 10x and 40x magnifications. Data were analyzed using the Chi-square test.

Results

There was no statistically significant difference ($p > 0.05$) in staining quality between the two methods across all time points and magnification levels.

Conclusion

The staining quality of the drying and conventional methods shows no significant difference, however, drying offers advantages in time, cost, and safety, making it a potential eco-friendly alternative to xylene in H&E staining.

Abstract

[AP-126] Challenges in diagnosing pediatric small round blue cell tumors in the philippines: a five-year tertiary care pediatric hospital experience

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Background

Pediatric small round blue cell tumors (PSRBCTs) are undifferentiated malignant neoplasms with overlapping histopathologic features. Delays in accurate diagnosis can postpone treatment, as therapeutic approaches differ between tumor types.

Objectives

This study evaluates the turnaround time (TAT) of histopathology reports for PSRBCTs at the largest pediatric hospital in the Philippines, and identifies factors affecting TAT.

Materials and Methods

A quantitative cross-sectional study reviewed 232 cases from 2018 to 2022. Mean overall TAT and phase-specific TATs were calculated. Multivariate analysis assessed associations between factors and TAT, while Spearman correlation examined the relationship between the number of consultants involved and mean TAT.

Results

The mean overall turnaround time (TAT) was 13.39 days, with the pre-analytical, analytical, and post-analytical phases averaging 1.89, 11.56, and 4.53 days, respectively. Outsourcing immunohistochemical stains significantly prolonged the TAT, while the COVID-19 pandemic was associated with a reduction in TAT. A positive correlation was observed between the number of consultants reviewing a case and the overall TAT. Additionally, the lack of molecular testing availability limited the ability to achieve more precise histopathologic diagnoses.

Conclusion

Timely and accurate histopathology reporting is critical for quality pediatric cancer care. Identified factors reveal opportunities to enhance diagnostic speed and accuracy.

Abstract

[AP-127] Evaluation of the accuracy of the membrane thickness meter measurement by re-embedding and re-section methods.

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Background

In histopathology, tissue section thickness (TST) inconsistency influences the accuracy of staining and quantification.

Objectives

To validate the results measured by a membrane thickness meter (MTM), we evaluated a cross-sectional sample (CSS) of fish sausage tissue (FST) by image analysis.

Materials and methods

Initially, we did the sectioning of paraffin-embedded FST, and after drying it, we measured the thickness of tissue by MTM. Next, again the sectioning of another fish sausage tissue block, making 20 continuous piled up fish sausage sections (PFSS), proceeds into a molten paraffin mold. Next, following the complete melting of the accumulated paraffin, transfer the mold onto the cold plate. After embedding, take out the paraffin containing PFSS, cut it into sections, and turn each cut section vertically before re-embedding, followed by re-sectioning to make CSS slides. Lastly, the slide was stained with eosin solution, and the cross-sectional thickness of the specimen was measured.

Results

Comparing the results of both methods, we observe that there was no difference between the two measuring methods.

Conclusion

Our results indicate that precise measurements of the glass slide-mounted TST using equipment like MTM are crucial for achieving proper staining intensity.

Abstract

[AP-131] Assessment of morphological quality and nucleic acid yield and purity from FFPE tissue samples across various clinical tissue processors

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Background

The ability to rapidly generate histologic slides from tissue samples is critical to the clinical pathology workflow. Additionally, the capacity to successfully isolate DNA for Next-Generation Sequencing (NGS) from Formalin-Fixed Paraffin-Embedded (FFPE) tissue Epredia Revos tissue processor can provide excellent tissue morphology, sufficient amounts of nucleic acids for required downstream testing, and better-quality nucleic acids for next-generation sequencing compared to Sakura Tissue Tek VIP 5 tissue processor and Leica Peloris III tissue processors.

Design

Fresh specimens from normal (n = 15) and tumor (n = 8) tissues were harvested via surgical resection and immediately fixed according to standard clinical laboratory practices using 10% Neutral Buffered Formalin (NBF). Each tissue was divided into three (3) equal parts and processed according to each manufacturer's indicated standard clinical program on three (3) separate tissue processors: Epredia Revos, Sakura Tissue Tek VIP 5, and Leica Peloris III. Formalin-fixed paraffin-embedded (FFPE) tissue blocks from each system were used 1) to generate tissue slides stained with Hematoxylin and Eosin (H&E), used to assess morphological integrity across each system and 2) isolate DNA and RNA, assessed for quantity and quality to be used for Next Generation Sequencing (NGS).

Results

The Epredia Revos tissue processor resulted in excellent tissue processing with no unprocessed tissues or tissue damage from all tissues (normal and tumor) observed macroscopically and microscopically. Using the routine surgical protocol setting, we obtained excellent morphology on all tissues (normal and tumor), as observed

Abstract

[AP-132] Comparative efficiency of parallel versus separate nucleic acid preparation for NGS and single molecular tests in primary lung cancer biopsies

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Background

Lung cancer remains a major health burden in Korea, accounting for a substantial proportion of cancer incidence and mortality. Molecular diagnostics, including single molecular tests (SMTs) and next-generation sequencing (NGS), have become essential components in the diagnostic and therapeutic strategy for non-small cell lung cancer (NSCLC). Efficient utilization of limited biopsy tissue is critical, particularly for NGS, which requires sufficient nucleic acid for library preparation.

Objectives

This study aimed to compare the efficiency of two different nucleic acid preparation workflows—separate versus parallel extraction for SMTs and NGS—in terms of test success rate, turnaround time (TAT), and detection of clinically relevant molecular alterations in primary lung cancer biopsies.

Materials and methods

We retrospectively analyzed primary lung cancer cases diagnosed at Seoul St. Mary's Hospital from January 2022 to April 2023. Two laboratory workflows were compared: (1) separate nucleic acid extractions for SMTs and NGS (January–July 2022), and (2) parallel use of a single nucleic acid extraction for both SMTs and NGS (August 2022–April 2023). Tumor size was digitally measured along the biopsy tract, and standardized dimensions were used to evaluate the adequacy of biopsy samples. We compared NGS cancellation rates, turnaround times (TAT), and library concentrations, and assessed the detection of unexpected targetable alterations.

Results

NGS cancellation due to insufficient nucleic acid occurred in 32 cases during period 1 and 17 cases in period 2. The average standardized tumor size of canceled cases was larger in period 1 (1.65 cm) than in period 2 (1.08 cm). Among cases with tumor size >1.0 cm,

cancellation rates were 65.5% in period 1 versus 47.1% in period 2. The average TAT was reduced from 22.3 days (period 1) to 14.8 days (period 2). Library concentrations remained acceptable in both workflows. Additionally, there were more cases with successful NGS tests detecting unexpected molecular events, such as MET exon 14 skipping and EML4-ALK fusion.

Conclusion

A parallel nucleic acid preparation workflow using a single extraction for both SMTs and NGS is an efficient and feasible approach in routine pathology practice. It minimizes laboratory workload, reduces turnaround time, and improves the likelihood of successful NGS testing, including detection of clinically meaningful genetic alterations in lung cancer diagnostics.

Abstract

[AP-133] A rare case of dysembryoplastic neuroepithelial tumor simulating high-grade gliomas

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Introduction

Dysembryoplastic neuroepithelial tumor (DNT) is a rare benign glioneuronal tumor of the central nervous system, with an incidence of 0.03 cases per 100,000 person-years, and is classified as a WHO grade I tumor. Herein, we report a case of this entity that was initially suspected to be a high-grade glioma.

Case presentation

A 14-year-old female was admitted for seizures occurring over the past five months. On physical examination, she was conscious, and neurological findings were within normal limits. The brain MRI showed a well-circumscribed lesion in the right frontal lobe (34 × 33 × 32 mm), hypointense on T1W and hyperintense on T2W, with areas of mixed-signal intensity on FLAIR and a characteristic “soap-bubble” appearance on T2 and FLAIR. The patient was referred for complete tumor resection surgery. Grossly, the specimen had a heterogeneous cut surface, comprising both solid and mucoid white areas. Microsections revealed the complex form of DNT, consisting of bundles of axons lined by small oligodendroglia-like cells with intervening neurons floating in a myxoid matrix, in combination with glial nodules resembling those of astrocytoma and oligodendroglioma. Besides, several clusters of cells with enlarged, hyperchromatic, and pleomorphic nuclei were also present. Recovery after the operation was without complications, and recurrence has not been observed.

Discussion and conclusion

The histopathological features, including the multinodular intracortical pattern, the pathognomonic glioneuronal element, and the absence of necrosis and high cellularity, are hallmarks for distinguishing DNT from other high-grade gliomas. In addition, aggregates of pleomorphic cells of varying sizes may occasionally be seen in DNT, a feature that may contribute to its frequent overdiagnosis as a high-grade glioma. Surgical resection is the preferred treatment, typically yielding excellent outcomes without lasting neurological deficits.

Abstract

[IAP-134] Malignant extramedullary spinal paraganglioma with widespread metastases: a diagnostic and management challenge

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Introduction

Neuroendocrine tumors (NETs), including paragangliomas, present significant diagnostic challenges, particularly when metastatic. Accurate differentiation from other malignancies is crucial for appropriate treatment and prognosis. This case highlights a rare presentation of malignant extramedullary paraganglioma.

Case presentation

A 50-year-old male presented with progressive lower limb weakness due to extradural spinal cord compression (ESCC). Initial pathology suggested metastatic adenocarcinoma, but comprehensive immunohistochemical (IHC) analysis confirmed a diagnosis of extramedullary paraganglioma originating from the thoracic spine (Th3). Radiological imaging revealed extensive metastatic disease involving bone, liver, lymph nodes, along with a suspicious gallbladder mass.

Discussion and conclusion

This case underscores the critical role of immunohistochemistry in differentiating paragangliomas, especially those with atypical presentations and widespread metastases. The “Zellballen” pattern with positive Synaptophysin, CD56, and focal S-100 staining, confirmed the neuroendocrine lineage consistent with paraganglioma. Primary spinal extramedullary paragangliomas are rare, with a thoracic site being particularly uncommon. The extensive metastatic burden definitively classifies this as a malignant paraganglioma, as malignancy in paragangliomas is defined by the presence of metastases. This report illustrates a rare malignant extramedullary spinal paraganglioma with widespread metastases. A multidisciplinary approach, including precise pathological diagnosis and comprehensive imaging, is essential for managing complex cases and optimizing patient outcomes.

Abstract

[AP-135] A hybrid tumour with schwannoma and meningioma in a patient with neurofibromatosis type 2

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Introduction: Neurofibromatosis type 2 (NFT-2) is an autosomal dominant disease, and these patients present with multiple intracranial and intraspinal neoplasms. Around 50% of NFT-2 patients develop meningiomas and around 30% develop schwannomas. However, the coexistence of meningioma and schwannoma is extremely rare, with around ten documented cases in the literature.

Case report: A 45-year-old woman diagnosed with NFT-2 presented with right-side hearing impairment and left-side facial numbness. MRI shows multiple dural-based extra-axial lesions in the posterior fossa along the falx cerebri and over cerebral convexities. During surgery, the possibility of a hybrid tumour was suspected as the tumor was infiltrating the brain tissue. The resected CP angle tumour was sent as multiple fragments, measuring 55X50X10 mm for histological assessment, and the tumour was composed of two histological components. One area contained whorls, fascicles and bundles of meningothelial cells with multiple psammoma bodies. Constituent cells showed positivity for EMA and S100, compatible with transitional meningioma (WHO grade 1). The other part of the tumour contained hypercellular and hypocellular areas: Antoni A areas with Verocay bodies and Antoni B areas. The constituent cells showed strong positivity for S100 and negative for EMA. These features were compatible with schwannoma.

Discussion and conclusion: NFT-2 is characterized by acoustic schwannomas, meningiomas, astrocytomas and extracranial schwannomas. Transitional meningiomas share the features of frequent 22q deletions and NF2 mutations. Also, NF2 mutation is a precursor neoplastic lesion for Schwann cells, commonly presenting with plexiform schwannoma. Surgical excision is the treatment for both tumours. When surgical excision is impossible, radiosurgery is the preferred treatment modality.

Abstract

[AP-136] Lesions of pineal gland: clinicopathological study with review of literature.

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Background: Pineal region tumors are rare (<0.5% of CNS tumors) and include primary parenchymal, germ cell tumors, gliomas, and metastases.
Objectives: To evaluate the clinicopathologic spectrum of pineal region tumors.
Materials and methods: This was a retrospective study of Pineal region tumors diagnosed at AKUH from 2012-2025. Clinicopathologic features were assessed and follow-up taken.
Results: A total of 59 were diagnosed, 35 males (59%) and 24 females (41%), with a mean age of 25 (median: 23 years). Most common diagnosis was Pineoblastoma, in 15 (25%) followed by Pineal parenchymal tumor of intermediate differentiation in 11 (19%), Papillary tumor of the pineal region in 7 (12%), Pineocytoma in 6 (10%), and Germ cell tumors in 4 (7%). Benign lesions such as Pineal cyst, Pineal lipoma, and Epidermoid cyst were seen in 1 (2%). Additionally, Pilocytic astrocytoma, Astrocytoma (WHO Grade 2), and Glioblastoma were diagnosed in 3 cases each (5%). Meningioma, Ependymoma, Lymphoma, and Plasma cell neoplasm were each found in one case. Follow-up data were available for 25 (mean duration: 2 years). 16 were alive. Postoperative treatment included chemotherapy (8 cases), CyberKnife radiosurgery (1 case), and conventional radiotherapy (1 case); the remaining had surgery alone.
Conclusion: Pineal region tumors are clinically diverse and pose diagnostic and therapeutic challenges, necessitating individualized treatment strategies and prolonged follow-up for optimal care.

Abstract

[AP-137] A primary diffuse large cell lymphoma of central nervous system (dlbcl-cns) – a rare case

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Introduction

Primary CNS lymphomas (PCNSL) are rare extra nodal Non-Hodgkin Lymphomas confined to the CNS at presentation with no evidence of systemic involvement. DLBCL is the commonest PCNSL. It is common in older people with the median age of 66 years. Prognosis wise CNS-DLBCL is worse than systemic DLBCL.

Case report

A 61-year-old female presented with acute left leg and face weakness. MRI shows right side lentiform nucleus and internal capsule space occupying lesion suggestive of a glioma. No lymphadenopathy, hepatosplenomegaly or mediastinal masses were detected. Excision of the lesion reveal sheets of medium to large discohesive cells with pleormorphic,hyperchromatic nuclei and scanty cytoplasm with brisk mitotic activity and angiocentric invasion. The immunomarker CD 20 is positive in atypical cells and negative for CD10 and CD3.Ki67 proliferative index was 70%.

Discussion

Both clinically and radiologically PCNSL can be misdiagnosed as a glioma. High degree of suspicion should be maintained in elderly presenting with neurological symptoms. Methotrexate based polychemotherapy has shown prolonged survival. IG gene clonal rearrangement seen in DLBCL which is currently unavailable in Sri Lanka.

Abstract

[AP-140] Title of abstract: cerebellopontine angle schwannoma in children: a clinicopathologic study from a tertiary care hospital.

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Introduction: Cerebellopontine angle (CPA) tumor is rare in children. Schwannomas account for approximately 0.8% of pediatric CPA tumors and are often linked to Neurofibromatosis type 2 (NF2). Common symptoms include hearing loss, headache, tinnitus, vertigo, and ataxia. Histologically, these tumors show Antoni A and B areas. Surgical resection is the main treatment.

Objective: To assess the clinicopathologic features of CPA schwannomas in children.

Materials and Methods: A retrospective study was conducted on CPA schwannomas diagnosed at Aga Khan University Hospital from 2010–2024. Clinical, histopathologic, and immunohistochemical data were analyzed, with follow-up information reviewed where available.

Results: A total of 37 cases were identified. Patients ranged from 8–20 years (mean: 15; median: 16), with 57% females. The most common symptoms were hearing loss, headache, and facial palsy. Tumor sizes ranged from 1–11 cm (mean: 4.9 cm). Histology showed spindle cells with hypo- and hypercellular areas. S100 was positive in all 25 tested cases; EMA, PR, and GFAP were negative. Follow-up was available in 17 patients: 12 were alive, 5 died. Recurrence occurred in 3 cases. NF2 mutation was present in 4 cases.

Conclusion: This study highlights that pediatric CPA schwannomas may differ from adult presentations, with a possible female predominance. NF2 mutation and recurrence are significant prognostic factors requiring close clinical monitoring.

Abstract

[AP-141] Clinicopathological and molecular features of pediatric malignant peripheral nerve sheath tumors originating from ganglioneuroma/ ganglioneuroblastoma

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Introduction

Malignant peripheral nerve sheath tumor (MPNST) is a spindle cell sarcoma originating from peripheral nerve sheath, prevalent in neurofibromatosis type 1 (NF1) patients or those with prior radiotherapy. Rare cases can result from malignant transformation of Schwann matrix in ganglioneuroma (GN) or ganglioneuroblastoma (GNB).

Case presentation

Two 7-year-old patients (one male, one female) presented with abdominal masses, without NF1 or radiotherapy history. CT scans revealed large soft tissue masses in the adrenal or retroperitoneal region. Histologically, tumors comprised sarcoma-like MPNST and GN/GNB. Immunohistochemically, MPNST showed decreased or absent S-100 and SOX10 expression, and loss of H3K27me3; one case also showed BRG1 loss. The GN/GNB component expressed Calretinin. Genetic sequencing identified CDKN2A and EED deletions and chromosomal gains in one case. The other case showed mutations in SMARCA4, ERCC4, JAK1, GLI2, ATRX, as well as amplifications of MYCN, MYC, ALK, MET, MDM4, MDM2, LIN28B, KRAS, FGFR1, EGFR, DNMT3A, and deletions of CDKN2B and CDKN2A. Both cases experienced postoperative recurrence; one survived 3 years and 4 months post-follow-up, while the other died after 9 months.

Discussion and conclusion

Pediatric MPNST arising from GN/GNB is rare and often misdiagnosed. It shows loss of markers like H3K27me3. CDKN2A deletion is a key driver, indicating high aggressiveness and poor prognosis.

Abstract

[AP-142] Adrenal mixed corticomedullary tumour in an infant

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Introduction

Mixed corticomedullary tumours (MCMTs), predominantly reported in adults, are typically benign and composed of both cortical adenoma and pheochromocytoma/ganglioneuroma components.

Case presentation

A 3-month-old girl was admitted following a prenatal detection of a right adrenal gland mass. Born at term to healthy, unrelated parents, her growth was normal. Lab tests showed low cortisol (92.02 nmol/L) and high lactate dehydrogenase (503.00 U/L). MRI identified a 30mm×34mm×43mm mass with clear boundaries and heterogeneous enhancement: low on T1WI, mixed high on T2FS, and high on DWI. Histology showed two components: diffusely distributed tumour cells with abundant eosinophilic cytoplasm and marked atypia, invading the capsule and vessels, consistent with an adrenal cortical tumour with malignant potential according to Wieneke criteria; and sheets of darkly staining small round cells with neuropil structures, indicative of neuroblastoma upon immunohistochemistry. It was diagnosed as an adrenal MCMT. Trio whole-exome sequencing of the patient's EDTA-anti-coagulated peripheral blood identified TP53 exon4 c.374C>G (p.Thr125Arg). Postoperative chemotherapy with carboplatin and etoposide has been administered for two months, with no metastasis or recurrence observed.

Discussion and conclusion

This case illustrates that MCMT rarely occurs in infancy, with malignant cortical and medullary components extending its histopathological spectrum, potentially associated with germline TP53 mutations.

Abstract

[AP-145] Comparison of expression level of sun1, sun2 and nuclear morphology in clear cell renal cell carcinoma

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Background: SUN is an inner nuclear membrane protein that binds nuclear lamina protein and is connected to the cytoskeleton through nesprin. Therefore, its change would affect cellular and nuclear morphology as well as cellular mobility.

Objectives: In the present study, we examined the expression of SUN and analyzed its relation to nuclear morphology in clear cell renal cell carcinoma (ccRCC).

Materials and methods: We used 49 cases diagnosed with ccRCC. Immunohistochemical staining for SUN1 and SUN2 was performed. Then, a whole slide image was created, and five representative fields were used to analyze the nuclear features and positivity of SUN1/2 using computer-assisted image analysis.

Results: No significant changes were observed between nuclear grade and SUN positivity rates for both SUN1 and SUN2. Similarly, no significant changes were observed between SUN positivity rates and nuclear area or circularity for both SUN1 and SUN2.

Conclusion: Based on these results, it is considered that both SUN1 and SUN2 have weak involvement in maintaining nuclear size and shape. In the future, it will be necessary to increase the number of cases and examine them in detail.

Abstract

[AP-1 46] Karyomegalic Interstitial Nephritis (KIN) in a young male with family history of renal disease: a case report

Objective

To describe a rare case of karyomegalic interstitial nephritis (KIN) in a young adult with a family history of kidney disease, emphasizing the role of ultrastructural and immunohistochemical studies in diagnosis.

Methods

A 27-year-old Asian male with slowly progressive renal dysfunction and strong family history of end-stage renal disease underwent a kidney biopsy. Light microscopy, immunofluorescence, electron microscopy, and viral immunostains (adenovirus, CMV, SV40) were performed.

Results

Light microscopy revealed 21 glomeruli, 12 globally sclerotic, with the remainder showing no proliferative or immune complex–mediated lesions. Hallmark findings included marked nuclear enlargement (karyomegaly) of tubular epithelial cells with irregular contours and smudgy chromatin, mild interstitial fibrosis, patchy mononuclear inflammation, and rare tubulitis. Immunofluorescence showed no significant staining, and electron microscopy confirmed karyomegaly without immune deposits or viral particles. Viral immunostains were negative. Clinically, proteinuria and urinalysis were unremarkable.

Conclusion

This case highlights the classic features of KIN, likely hereditary and associated with FAN1 gene mutations. Recognizing these findings is essential for diagnosis, guiding genetic testing, management, and family counseling in patients with a strong familial predisposition to kidney disease.

Abstract

[AP-148] A rare case -monoclonal gammopathy of renal significance

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Introduction: Monoclonal gammopathy of renal significance (MGRS) includes all kidney disorders caused by a monoclonal protein (M protein) secreted by a plasma cell clone when do not meet the diagnostic criteria of multiple myeloma or other B cell lineage lymphoma. These kidney disorders can manifest as glomerular disease, tubulopathies and vascular involvement with varying clinical presentation

Case report: A 65-year-old lady diagnosed with diabetes 5 months ago, hypertension for 7 years presented with proteinuria of 12.2g and high ESR.

The renal biopsy showed globally sclerosed and normocellular viable glomeruli. Vague mesangial nodules which were negative silver and PAS negative were seen in glomeruli. Tubular hyaline casts were noted. Glomerular and tubular basement membranes were thickened. Interstitial fibrosis and tubular atrophy accounted for 70% of the biopsy. Blood vessels showed hyaline arteriosclerosis.

Congo red stain showed apple green bifringence with polarization in glomerular and tubular membranes and vessel walls confirming the presence of amyloid. Immunofluorescence was negative for Ig G, Ig A, Ig Lambda restriction and kappa negativity was seen. A non-clonal population of plasma cells of 0.1% was detected in the bone marrow. Whole body CECT showed no evidence of multiple myeloma.

A diagnosis of MGRS was made at the multi-disciplinary meeting

Discussion and conclusion: MGRS accounted for 2–10% of the monoclonal gammopathy patients and can significantly impair renal function. Since treatment can stop and also reverse kidney disease early recognition is great importance. A high index of suspicion is recommended in patients presented with high proteinuria. Clone directed therapy with steroids and cytotoxic agents results in improve outcomes

Abstract

[AP-149] BK polyoma virus associated nephropathy in a renal transplant patient

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Introduction: BK polyomavirus-associated nephropathy (BKVAN) affects up to 15% of renal transplant recipients and is an important cause of graft failure, due to insidious inflammatory destruction of the renal tissue. Monitoring of BK polyomavirus (BKV) infection is required for early detection of reactivation. BKV is usually dormant in the kidney. It can be performed by detection of decoy cells in urine or detection of virus in plasma and urine using polymerase chain reaction (PCR). BKVAN diagnosis depends morphological findings in allograft biopsy with confirmation by immunohistochemistry.

Case report: A 36-year-old lady with kidney transplant for 1 year presents with rising serum creatinine. Pretransplant diagnosis was lupus nephritis

Renal biopsy showed normal glomeruli with minimally increased in cellularity. Proximal tubules show acute tubular necrosis in 20%of the tubules. There is marked to moderate nuclear atypia seen in lining epithelial cells with granular casts formation. Dense interstitial inflammation was present with prominent tubulitis. There is no evidence of vasculitis. Immunohistochemically tubular epithelial cells show positivity for SV 40 confirming the presence of BK virus and negativity for C4d supporting the absence of antibody mediated rejection (ABMR)

Discussion and conclusion: Histological features are nonspecific for both BKVAN and T cell mediated rejection (TCMR) and confirmation by immunohistochemistry is important as management is totally different in two conditions. Increase immunosuppression is the treatment for TCMR and vice versa for BKVAN.Many risk factors are involved in BKV reactivation but the identification of patients who have high risk to develop BKVAN remains a challenge. Specific antiviral treatments for BKV are not available. The absence of a standard protocol for BKV infection treatment makes clinical management of these patients difficult. The mainstay of treatment in BKVAN remains careful reduction of immunosuppression and close monitoring for the development of acute rejection.

Abstract

[AP-150] IgA nephropathy in a renal transplant patient

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Introduction

Ig A nephropathy (IgAN) is the most common type of primary glomerular disease worldwide with 30% of cases reaching end stage kidney disease (ESKD) approximately 2 decades after initial diagnosis. Kidney transplantation is the treatment of choice for these patients. The recurrence of IgAN after kidney transplantation occurs in about 20% to 60% of patients.

Case report

A 46-year-old underwent a kidney transplant from his identical twin 2 years back, presented with rising serum creatinine and microscopic hematuria. Pre transplant diagnosis of kidney disease is unknown He had reperfusion injury at the time of transplant. Renal biopsy was performed.

Hypercellular glomeruli with increase in mesangial cells and matrix were seen. Endocapillary cellularity was seen with polymorph infiltration. Basement membranes were not thickened. There were no crescents. Mild peritubular capillaritis was seen. Interstitial fibrosis and tubular atrophy accounts for 10% of the biopsy.

Immunofluorescence for IgA andC3 show strong positivity in glomerular basement membranes.C4d was negative.

Overall appearances were consistent with IgAN in the graft biopsy, could be denovo or recurrent disease

Discussion and conclusion

Recurrence of previous kidney disease is an important differential diagnosis to keep in mind, when assessing transplant kidney specially when pre transplant diagnosis is unknown; complete work up with immunofluorescence and correlation with history is very important. Electron microscopy is useful but essential in a resource poor setting most of the time.

Abstract

[AP-152] Malignant epithelioid angiomyolipoma of the kidney Mimicking renal cell carcinoma: a diagnostic challenge

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Introduction

Epithelioid angiomyolipoma (EAML), a rare variant of renal angiomyolipoma, can exhibit malignant behavior and mimic high-grade renal cell carcinoma (RCC), making diagnosis challenging.

Case presentation

A 55-year-old female underwent nephrectomy for a 9×10×8 cm renal mass incidentally detected on imaging, initially suspected to be RCC. Grossing revealed a pink-white, homogeneous tumor with focal necrosis, hemorrhage, and ill-defined margins. Histology showed a carcinoma-like pattern with sheets of large epithelioid cells with eosinophilic cytoplasm, nuclear pleomorphism, multinucleated giant cells, and a lymphocyte-rich stroma. Focal areas contained spindle cells, scattered adipocytes, and sparse abnormal vessels. The tumor extended into perinephric fat. Immunohistochemistry showed HMB45 positivity and negativity for cytokeratin, PAX8, S100, and desmin, supporting the diagnosis of malignant EAML. The patient remains disease-free at 6-month follow-up.

Discussion and conclusion

EAML is defined by the presence of ≥80% epithelioid cells with eosinophilic or clear cytoplasm. Due to its epithelioid morphology and minimal adipocytic component, it may closely mimic RCC, both clinically and histologically. HMB-45 positivity, along with the absence of cytokeratin expression, plays a crucial role in establishing the correct diagnosis. Malignant potential is suggested by large size, necrosis, carcinoma-like pattern and perinephric fat invasion, as seen in this case. Awareness of EAML is critical to avoid misdiagnosis and to ensure appropriate follow-up due to its potential for recurrence and metastasis.

Abstract

[AP-153] Thoracic SMARCA4-deficient undifferentiated tumor in a filipino adult male: a case report

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Introduction

Thoracic SMARCA4-deficient undifferentiated tumor (SMARCA4-DUT) is a diagnostically challenging malignancy due to its undifferentiated morphology. In the Philippines, definitive diagnosis has only been possible recently with the introduction of SMARCA4 (BRG1) immunohistochemistry (IHC). We report the first documented case of thoracic SMARCA4-DUT in the Philippines.

Case presentation

An 81-year-old Filipino male with a 20-year smoking history presented with a left lung mass. CT scan showed a lobulated mass (13.8 x 10.3 x 9.7 cm) at the left lower lobe with local mass effect and multiple foci suggestive of metastases. Histomorphology shows sheets of discohesive rhabdoid cells with brisk mitotic activity and necrosis. On IHC, the tumor cells are negative for pancytokeratin and demonstrate SMARCA4 (BRG1) loss and retained SMARCB1 (INI1) expression.

Discussion and conclusion

Thoracic SMARCA4-DUT typically occurs in adult males with significant smoking history and presents at a high stage. Its undifferentiated morphology and nonspecific expression of common lineage markers e.g., SALL4 and synaptophysin make the diagnosis difficult without the required IHCs. In the appropriate clinical and cytohistomorphologic context, a limited panel of IHCs (pancytokeratin, BRG1, and INI1) is enough to diagnose thoracic SMARCA4-DUT and exclude closely related entities like SMARCA4-deficient non-small cell lung carcinoma and epithelioid sarcoma.

Abstract

[AP-154] Extraskeletal aneurysmal bone cyst of left hemithorax : an extremely rare case

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Introduction

Aneurysmal bone cyst (ABC) is a benign expansile cystic lesion that can affect any bone of the skeleton. Lesions with histologic features of an ABC within hemithorax is extremely rare.

Case report

A 13-year-old girl presented with difficulty in breathing and pain. On chest enhancing CT, a 13.5 x 10.4 x 10.0 cm sized heterogeneously enhancing mass was noted involving the left hemithorax, compressing the ribs and underlying lung. CT-guided core biopsy was done. A diagnosis of a spindle cell lesion with osteoclast-type giant cells was offered. Left thoracotomy was done. The mass was seen completely separate from the posterior surface of ribs and compressed the surrounding lung tissue. Grossly, it was well-circumscribed and encapsulated. Cut surface showed multiple blood-filled cystic spaces, tan-brown solid areas. Histopathologic showed blood-filled cystic cavities with intervening fibrous septa containing multinucleated osteoclast-type giant cells, bland fibroblastic cell proliferation on hyalinized stroma, calcification, and woven bone. Cystic cavities were lined by osteoclast-type giant cells.

Discussion and conclusion

Extraskeletal ABC is an extremely rare benign tumor in thorax. It can be confused with a variety of giant cell-rich reactive and neoplastic lesion. Surgical excision is the treatment of choice and recurrence is rare.

Abstract

[AP-155] Primary endobronchial burkitt lymphoma in a child: a case report

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Introduction

Primary endobronchial tumors are extremely rare in children and often are misdiagnosed, resulting in a delay of appropriate treatment. Carcinoid tumor comprises about 80% of pulmonary neoplasms in children, whereas malignant lymphoma is much less common.

Case report

A 13-year-old boy with a history of persistent cough and low grade fever. Chest CT showed an 8 cm sized enhancing mass with eccentric calcifications involving right lower lobar bronchus and distal obstructive pneumonia. A bronchoscopic examination revealed complete occlusion of the right lower lobar bronchus by soft friable mass. Brochoscopic biopsy showed marked proliferation of lymphoid cells and extensive coagulative necrosis. Immunohistochemical staining showed that the neoplastic cells was positive for CD20, CD10, PAX5, bcl-6 and negative for CD3, TdT, bcl-2. Nearly all of the neoplastic cells were positive for MiB1. C-MYC FISH showed a positive translocation. With these findings, Burkitt lymphoma was diagnosed. It is extremely rare and likely arises in lymphoid tissue of the bronchial mucosa.

Discussion and conclusion

we report an extremely rare case of primary endobronchial Burkitt lymphoma in a 13-year-old boy. Although bronchial neoplasm in children is rare, early diagnosis and treatment are necessary, as bronchial occlusion may be associated with mortality.

Abstract

[AP-156] Malignant transformation mediastinal goiter into papillary thyroid carcinoma : a case report

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Introduction

Mediastinal goiter is a mediastinal mass caused by an enlargement of the thyroid gland, which is located in the anterior mediastinum. Transformation of mediastinal goiter into a malignancy is extremely rare. We present a case in which a mediastinal goiter transformed into papillary thyroid carcinoma.

Case Report

A 59-year-old male had a cough and chest pain. Physical examination found hypertension, and laboratory tests indicated hyperglycemia. A thoracic CT scan showed a lobulated solid mass in the right mediastinum, attached to the anterior trachea and the right supero-anterior chest wall. A thoracotomy was performed and the tumor was completely resected. Histopathology found the tumor was organized in a follicular pattern, with the tumor nuclei exhibiting ground-glass and nuclear groove features. Capsular invasion was noted. These findings indicate papillary thyroid carcinoma. In other areas, colloid follicles were found.

Discussion and conclusion

Mediastinal goiter is one of the most common lesions found in the anterior mediastinum. Transformation of mediastinal goiter into papillary thyroid carcinoma is rare. Pathology examination is needed to confirm the final diagnosis after tumor resection. It is crucial to consider malignant transformation of a mediastinal goiter as a differential diagnosis when an anterior mediastinal mass is identified.

Abstract

[AP-157] Coexistence of EGFR and ALK alterations in lung adenocarcinoma: a rare case of dual-targetable mutation

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Introduction

Epidermal growth factor receptor (EGFR) mutations and anaplastic lymphoma kinase (ALK) rearrangements are generally considered mutually exclusive in non-small cell lung carcinoma (NSCLC). However, with advances in molecular diagnostics, rare cases exhibiting both alterations have been increasingly reported.

Case Presentation

A 74-year-old male with stage IV adenocarcinoma of the right upper lung lobe (cT4N2M1c) was initially found to harbor an EGFR mutation and received EGFR tyrosine kinase inhibitor (TKI) therapy. Upon disease progression, rebiopsy confirmed adenocarcinoma. Next-generation sequencing (NGS) revealed concurrent EGFR mutation (variant allele frequency [VAF] 39.2%) and ALK rearrangement (VAF 5.38%). Immunohistochemical staining using a companion diagnostic antibody confirmed ALK protein overexpression. ALK-targeted therapy with brigatinib was subsequently initiated.

Discussion and Conclusion

Concurrent EGFR/ALK alterations are rare (0.1–1.6%) and pose diagnostic and therapeutic challenges. They are more frequently seen in younger, non-smoking patients with solid or signet-ring cell adenocarcinoma. There is no established treatment approach; some respond to EGFR-TKIs, while others benefit from ALK inhibitors, especially after EGFR-TKI resistance. Prognosis remains uncertain due to the rarity of these dual alterations. Repeat molecular profiling is essential to guide therapy. This case underscores the importance of comprehensive molecular testing and personalized treatment strategies in advanced NSCLC.

Abstract

[AP-160] Intracytoplasmic clues: lysozyme-associated nephropathy presenting as progressive renal dysfunction

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Introduction

Lysozyme-associated nephropathy is a rare cause of kidney injury characterized by toxic accumulation of lysozyme within proximal tubular cells. Recognition is essential because it may be reversible with treatment of the underlying disorder.

Case presentation

An 80-year-old man with chronic kidney disease stage 3B, hypertension, diabetes, and IgG lambda monoclonal gammopathy presented with progressive renal dysfunction (creatinine 2.2 mg/dL). Kidney biopsy showed multiple proximal tubules containing hypereosinophilic, PAS-weak inclusions. Lysozyme immunostain highlighted strong cytoplasmic positivity, and electron microscopy confirmed intracytoplasmic electron-dense inclusions. Glomeruli were largely unremarkable. Vessels showed mild arteriosclerosis and arteriolar hyalinosis.

Discussion and conclusion

Lysozyme-associated nephropathy results from overproduction and filtration of lysozyme, leading to proximal tubular injury. Although classically associated with myeloid neoplasms, it can occur in other hematologic disorders. Early recognition through characteristic histologic and ultrastructural findings guides appropriate workup, including serum lysozyme measurement, and may improve renal outcomes by addressing the underlying cause.

Abstract

[ASD-01] Not So Sweet: Erythema Nodosum Leprosum Mimicking Sweet Syndrome in a Lepromatous Leprosy Patient

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Introduction

Erythema nodosum leprosum (ENL) is a type 2 leprosy reaction that typically presents with painful, erythematous subcutaneous nodules, often accompanied by fever, malaise, and joint pain. However, its clinical presentation can sometimes mimic other neutrophilic dermatoses, such as Sweet syndrome—posing a diagnostic challenge.

Case presentation

A 35-year-old Filipino male presented with a 7-day history of widespread erythematous macules, papules, and nodules on the face, trunk, and extremities, along with fever (Tmax 38°C) and bipedal edema. He had applied herbal oils and took co-amoxiclav without improvement. Physical exam showed warm, indurated, non-tender plaques and nodules, some with crusting and vesiculation. Hypoesthesia (80–90%) was noted over plaques, though there was no nerve thickening or deformity. CBC showed neutrophilic leukocytosis (23.2×10^9/L). Skin biopsies revealed papillary dermal edema and dense dermal-subcutaneous infiltrates of neutrophils, neutrophilic nuclear dust, foamy histiocytes, and globi surrounding vessels, adnexae, and nerves. Fibrin was present in some vessel walls. Fite stain and slit skin smear confirmed acid-fast bacilli.

Discussion and conclusion

This case highlights a Sweet syndrome-like presentation of ENL. In leprosy-endemic regions, recognition of acid-fast bacilli and globi on histopathology, as well as slit skin smear, remain crucial for accurate diagnosis and timely treatment.

Abstract

[ASD-02] Diffuse large b-cell lymphoma presenting as a solitary nodule on the lip in a newly diagnosed case of HIV

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Introduction

Diffuse large B-cell lymphoma (DLBCL) is the most common type of non-Hodgkin and HIV-related lymphoma, driven by immune dysregulation and impaired surveillance. Among patients with HIV, DLBCL classically presents with aggressive characteristics and systemic symptoms. Solitary lesions, particularly on the head and neck, are rare, even among other immunocompromised populations.

Case Presentation

A 28-year-old Filipino male presented with a 3-week history of a gradually enlarging asymptomatic nodule on the right lower lip. He was recently diagnosed with HIV, but denies trauma to the area or other illnesses. Systemic examination was unremarkable. Wedge biopsy revealed a dense nodular dermal proliferation of atypical large hyperchromatic lymphoid cells with conspicuous nucleoli with scattered lymphocytes, histiocytes, plasma cells, eosinophils, neutrophils, and mitotic figures within. Immunohistochemistry staining showed a pattern suggestive of DLBCL: CD3-, CD20+, CD30-, Bcl2+, Bcl6- scattered staining for Kappa, Lambda, and MUM1 (20%), and a high Ki67 index (60%).

Discussion and Conclusion

This case highlights the rare presentation of DLBCL as a nodule on the lip. It also underscores the importance of vigilant malignancy screening, particularly when atypical mucocutaneous lesions arise, in patients with HIV. Prompt recognition of HIV-associated lymphomas is crucial for timely initiation of therapy.

Abstract

[ASD-03] A case of classical Kaposi sarcoma in an elderly Filipino woman

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Introduction

Kaposi sarcoma (KS) is an HHV-8-associated endothelial neoplasm. Classical KS (CKS) typically affects elderly men from endemic regions such as the Mediterranean and Sub-Saharan Africa. We report a rare case of CKS in a 74-year-old immunocompetent Filipino woman with no HIV infection or travel history. She presented with a 15-month history of progressive violaceous plaques, nodules, papules, and patches, primarily on the distal extremities.

Case presentation

Histopathologic examination revealed slit-like and sieve-like vascular channels. Immunohistochemistry showed positivity for CD31, D2-40, and HHV-8, confirming the diagnosis of a lymphangioma-like variant of CKS.

Conclusion

This histologic subtype is rarely reported, especially in non-endemic regions and HIV-negative individuals. To our knowledge, only two other CKS cases have been reported in HIV-negative individuals in the Philippines—both male and lacking this histologic variant. This case expands the demographic and histologic spectrum of CKS in the local context and underscores the importance of including KS in the differential diagnosis of vascular skin lesions, even in non-endemic populations.

Abstract

[ASD-08] Primary cutaneous or primary breast squamous cell carcinoma? a diagnostic dilemma

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Introduction

Squamous cell carcinoma (SCC) involving the breast region presents a diagnostic pitfall for both dermatopathologists and breast pathologists. Distinguishing between primary cutaneous SCC of the breast skin and primary breast squamous carcinoma (PBSCC) is essential, as their biology and management differ.

Case presentation

A 50-year-old woman presented with a large fungating mass over the left upper outer quadrant of the left breast. Core biopsy confirmed invasive SCC with keratin pearls and intercellular bridges but no identifiable breast glandular tissue. Radiological imaging localized the tumor epicenter to the skin, with no evidence of breast parenchymal origin or other primary site.

Discussion and conclusion

Histologically, SCC in this location can mimic metaplastic breast carcinoma, but PBSCC requires exclusion of cutaneous origin and is exceptionally rare. Immunohistochemistry has limited value, as squamous markers confirm differentiation but do not discriminate between cutaneous and breast origin. In this case, the absence of breast tissue and a skin-based epicenter supported a diagnosis of primary cutaneous SCC. This distinction is clinically significant: cutaneous SCC is managed with wide excision and selective nodal assessment, whereas PBSCC is treated as aggressive metaplastic carcinoma requiring systemic therapy. This case underscores the importance of multidisciplinary collaboration in resolving site-of-origin dilemmas.

Abstract

[ASD-09] Atypical clear cell hidradenoma with suspected benign metastasis to a lymph node

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Introduction

Metastasis has traditionally referred to the spread of malignant tumors. However, recent studies have identified the presence of benign tumor tissue within lymph nodes or distant organs outside of the primary site-mimicking the dissemination pattern of malignant neoplasms. As a result, the concept of “benign metastasis” has received growing attention in the scientific literature, though it remains controversial despite several proposed hypotheses.

Case presentation

We report a rare case of clear cell hidradenoma with suspected benign metastasis to a lymph node. A 69-year-old male presented with a mass in the right inguinal region measuring 2x1.5x1cm with an ivory-colored, homogeneous cut surface, speckled with brown areas. Systemic screening revealed no abnormalities in the liver, lungs, brain, stomach, colon, testes, or prostate. Histopathological and immunohistochemical examinations confirmed the diagnosis of clear cell hidradenoma involving the lymph node. Three months post-surgery, follow-up ultrasound showed no residual lesion, and the surgical site was healing well.

Discussion and conclusion

Lymph node involvement in clear cell hidradenoma is extremely rare and challenges the traditionally benign nature of this tumor type. Long-term follow-up is advised, and these tumors should be considered atypical or of uncertain malignant potential to ensure appropriate clinical management.

Abstract

[ASD-10] Three synchronous non-melanomaskin cancersof the head and neck: a case report and literature review.

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Introduction

Squamous cell carcinoma (SCC) and basal cell carcinoma (BCC) are the most common non-melanoma skin cancers, with exposure to ultraviolet (UV) light being the most critical risk factor.

These tumors usually affect older individuals with fair complexions. The co-occurrence of two or more non-melanoma skin cancers is a rare clinical event, the diagnosis of which rests on pathologic examination of the excised tumors. BCC is the most common non-melanoma skin cancer (NMSC), a locally aggressive tumor with a low disease-associated mortality rate, and metastases are exceptionally rare. A Lot of variants exist, like nodular and nodulocystic, infiltrative and morpheaform. On the other hand, SCC is the second most common NMSC,with significant morbidity and mortality. A lot of histological variants exist, including conventional, spindle cell, clear cell, and desmoplastic, among others. Treatment of both tumors entails excision with good safety margins.

Case presentation

A 90-year-old man presented to Al Hada Armed Forces Hospital with three skin tumors on his face. The first one was on the forehead, which turned out to be infiltrative BCC. The second one, on the nose, was diagnosed as nodular BCC. The third one was on the upper lip, and that was a well-differentiated SCC. BCC was positive for CD10 and BerEP4, while SCC was positive for P63, P40, and CK5/6. Follow-up of the patient shows favorable outcomes, good cosmetic results, and noevidence of lymph node or distant metastasis.

Discussion and conclusion

This report documents a rare and unusual case of three synchronous NMSCs, infiltrative BCC, nodular BCC, and well-differentiated SCC, identified on the face of a 90-year-old male patient. Biopsies with histological assessment are the key to the correct diagnosis. Clinicians and pathologists need to be more cautious whenworkingup suchlesions

Abstract

[ASD-16] Utility of skin scraping for diagnosis of cutaneous leishmaniasis in a resource limited setting: a case report from nepal

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Introduction

Leishmaniasis is a neglected tropical disease caused by protozoa and transmitted by infected female sandflies. While visceral leishmaniasis has long been endemic in Nepal, cutaneous leishmaniasis is emerging. Parasitological, immunological or molecular methods are used for diagnosis. Molecular methods allow species identification but are limited by cost and availability. Nevertheless, simple and non-invasive methods remain valuable for early case detection, particularly in low resource settings.

Case presentation

A 25-year-old female presented with a long-standing, non-healing ulcer on her right forearm. Skin scraping was taken and Giemsa stained smears were examined on direct microscopy demonstrating both intracellular and extracellular Leishmania amastigotes, confirming cutaneous leishmaniasis. The patient received standard antileishmanial treatment and responded well.

Discussion and conclusion

Direct demonstration of parasites remains the most definitive method for diagnosing cutaneous leishmaniasis. Among these, direct microscopy of scraped cytology is reliable, affordable and easy to perform. Compared with biopsy, skin scraping is less invasive and provides an earlier presumptive diagnosis. This case highlights and reinforces the relevance of skin scraping as an effective diagnostic tool for cutaneous leishmaniasis in both resource limited and well equipped settings, allowing timely diagnosis and further possible management before molecular results are available.

Abstract

[ASD-17] Primary cutaneous cryptococcosis of the scalp: a rare case report

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Introduction

Dermal cryptococcosis constitutes a cutaneous expression of generalized cryptococcal infection, manifesting through varied morphological patterns that render clinical diagnosis challenging.

Case presentation

A 69-year-old immunocompetent man with no underlying medical conditions presented with a 2-month history of a painful and pruritic ulcerative patch on the scalp. Given the diagnostic challenge, histopathological examination of the scalp lesion was undertaken. Histopathological examination revealed numerous encapsulated, spherical yeast-form organisms of variable sizes accompanied by chronic granulomatous inflammation, which were extensively distributed throughout the epidermis and dermis. Special stains were performed to identify the organisms, and mucicarmine stain highlighted the capsules of the encapsulated yeast-form organisms, which were also emphasized by Grocott's Methenamine Silver(GMS) and Periodic Acid-Schiff(PAS) stains. Based on these findings a diagnosis of cutaneous cryptococcosis was made, which was subsequently confirmed by the detection of cryptococcal antigen in the serum. The patient was treated with fluconazole 600㎎/day for approximately 4 months, and the lesion showed improvement.

Discussion and conclusion

This case represents a rare occurrence of cryptococcosis localized only to the skin without systemic involvement in an immunocompetent individual. Histopathological examination with special stains and serum antigen testing are essential for diagnosis. Four months of fluconazole therapy achieved complete resolution, highlighting favorable outcomes when the disease remains localized to the skin.

Abstract

[ASD-18] A notable mimicker: eccrine poroma on the sole simulating other pigmented tumors

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Introduction

Eccrine Poroma is a rare, benign adnexal tumor derived from the terminal duct of sweat glands. They appear as flesh-colored or erythematous papules or nodules on palms and soles, where high concentration of eccrine sweat glands is seen. While lesions may appear as hyperpigmented, they are extremely uncommon, accounting to less than twenty percent of cases. Furthermore, less than ten cases of pigmented poroma on palmoplantar areas have been documented, making this location quite atypical for this variant.

Case presentation

This is a case of a 70-year-old Filipino female presenting with asymptomatic, slow-growing, solitary, grayish-black colored nodule on her right sole of seven years duration. Dermoscopy showed asymmetric shape and color, white thread-like structures, irregular ridges on gray areas, and areas of hyperkeratosis. The clinical presentation as a dichromatic pigmented lesion in conjunction to its location on the sole points to common benign and some malignant pigmented tumors. A final diagnosis of eccrine poroma was made only after dermatopathologic examination.

Discussion and conclusion

A notable mimicker, eccrine poroma may present in a variety of clinical and dermoscopic findings, resembling both benign and malignant tumors. This case report then emphasizes the importance of skin biopsy and dermatopathologic analysis to making the right diagnosis.

Abstract

[ASD-20] Cutaneous b- cell pseudolymphoma treated with hydroxychloroquine in a 81-year-old filipino patient: a case report

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Introduction

Cutaneous B-cell pseudolymphoma (CBPL), also called cutaneous lymphoid hyperplasia, is a benign reactive lymphoproliferative disorder that mimics cutaneous B-cell lymphoma clinically and histopathologically. It results from excessive lymphocyte accumulation in the skin, often triggered by infections, medications, insect bites, or foreign materials. Diagnosis requires integration of clinical presentation, histopathology, immunophenotyping, and molecular studies.

Case presentation

An 81-year-old Filipino female presented with a two-year history of mildly pruritic erythematous papules and plaques on the face, back, and upper arms. Histopathology revealed dense dermal lymphoid infiltrates with nodular and diffuse patterns. Immunohistochemistry showed CD20 positivity, CD3 negativity, Bcl-6 expression confined to germinal centers, Bcl-2 in the mantle zone, a CD21-positive follicular dendritic meshwork, and polarized Ki-67 expression, consistent with CBPL. Imaging studies excluded systemic lymphoma. The patient was treated conservatively with hydroxychloroquine 200 mg and prednisolone 30 mg daily, leading to clinical improvement

Discussion and conclusion

This case highlights the diagnostic challenge of CBPL and the importance of distinguishing it from cutaneous B-cell lymphoma. Accurate diagnosis is crucial to prevent both overtreatment and underdiagnosis, which may carry significant clinical risks.

Abstract

[ASD-23] Lichen aureus in a 39-year old filipino female with good response to topical clobetasol and tacrolimus plus oral ascorbic acid and rutoside: a case report

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Introduction

Pigmented Purpuric Dermatoses (PPD) are a rare group of chronic and benign dermatoses characterized by petechiae, pigmentation, and occasionally telangiectasia. Lichen aureus (LA) presents as a more localized subtype of PPD with a distinctively gold, rust, or orange, circumscribed macules, and papules. Typically, lesions are solitary to few and are most commonly located over the lower extremities.

Case presentation

A 39 year old, Filipino, female, presented with several erythematous to brownish non-blanching macules, patches, and plaques over the left big toe, bilateral medial and lateral areas of the feet. Histopathological findings from a plaque on the right foot showed laminated orthokeratosis on top of a normal looking epidermis and prominent lichenoid infiltration of lymphocytes and histiocytes in the upper dermis. Erythrocyte extravasation and hemosiderin deposition were also noted. Clinico-histopathologic findings were consistent with PPD, Lichen Aureus variant.

Discussion and conclusion

LA is rare variant of PPD with limited data on its prevalence and incidence worldwide. Despite distinct clinical presentations, the subtypes of PPD share common histopathologic features namely: superficial and perivascular lymphocytic infiltrates centered on superficial small vessels, extravasated erythrocytes, and hemosiderin-laden macrophages. This case report highlights the role of clinico-histopathologic correlation to aid in the prompt diagnosis and management of the disease.

Abstract

[ASD-26] Syringocystadenoma papilliferum of the axilla: a rare case with strong correlation between FNAC and histopathological findings

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Introduction

Syringocystadenoma papilliferum (SCAP) is a rare, benign adnexal tumor that most commonly arises on the head and neck, accounting for more than 75% of cases. However, its occurrence in the axilla is extremely rare. This report serves to highlight the crucial utility of Fine-Needle Aspiration Cytology (FNAC) in achieving an accurate preoperative diagnosis.

Case presentation

A 58-year-old male presented with a 15-year history of a slow-growing, asymptomatic mass (3 x 3 cm) in the right axilla. Fine-needle aspiration cytology (FNAC) revealed cellular smears with epithelial sheets, papillary fronds, and duct-like structures, along with mixed inflammatory infiltrate, suggesting a benign adnexal tumor consistent with SCAP. Subsequent excisional biopsy confirmed the diagnosis, demonstrating characteristic cystic invaginations with papillary projections and a dense lymphoplasmacytic infiltrate. Histopathological findings showed remarkable concordance with the initial FNAC.

Discussion and conclusion

Our case illustrates the importance of including SCAP in the clinical differential for axillary lesions. Furthermore, it confirms the reliability of FNAC for the preoperative diagnosis of benign adnexal tumors, even when they appear in unusual locations. The strong cytological-histopathological correlation guides appropriate surgical management and helps avoid misdiagnosis as a malignant process, thus ensuring optimal patient care.

Abstract

[ASD-27] Looks like sebaceous hyperplasia in frontal fibrosing alopecia, but it is not.

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1. IQ Pathology

2. Darwin Dermatology

Introduction

Facial papules in frontal fibrosing alopecia (FFA) resemble sebaceous hyperplasia on histology.

Case presentation

We present a case of a 57-year-old postmenopausal female with active FFA on hydroxychloroquine, who presented with extensive skin-coloured non-inflammatory micropapules involving the lateral cheeks, temple and forehead.

Punch biopsies of the papules showed prominent sebaceous glands with dilated sebaceous ducts and a mild perilobular lymphocytic cell infiltrate. There was perifollicular isthmic fibrosis. There was no active lichenoid reaction pattern. Scant vellus hair bulbs and some follicular streamers were present. Orcein stain revealed a decreased and fragmentation of the elastic fibres around sebaceous lobules and upper reticular dermis.

Discussion and conclusion

The features are non-specific and resemble sebaceous hyperplasia. However, this is consistent with facial papules in FFA in this clinical context. The sebaceous glands are spared and appear prominent due to destruction of elastic fibres. This is in contrast to early destruction of sebaceous glands in scarring alopecia. The structural differences between facial vellus hair and scalp terminal hair, and differences in the composition and behaviour of the inflammatory infiltrate may account for these differences. Although facial papules have been linked to perifollicular lichenoid reaction, this finding may be absent in these facial papules.

Oral Presentation

[AP-06] Rare breast metastasis from disseminated alveolar soft part sarcoma in a young female: emphasizing the role of tumor board discussion

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Introduction

Alveolar soft part sarcoma (ASPS) is a rare malignancy affecting adolescents and young adults, with high metastatic potential. Common metastatic sites include lungs, brain, and bone. Breast involvement is extremely rare and can mimic primary breast neoplasms.

Case presentation

A 19-year-old female previously diagnosed with ASPS from a soft tissue mass near the distal femur presented years later with pain recurrence and new masses in the femur and breast. Fine needle aspiration cytology from the breast lesion showed characteristic features of ASPS. Radiologic studies revealed additional metastases to the liver and lungs. Rapid disease dissemination within months was observed. The case was discussed in a multidisciplinary clinicopathological conference at our tertiary referral hospital.

Discussion and conclusion

This case demonstrates the rare occurrence of breast metastasis in disseminated ASPS and underscores the importance of integrating clinical history, radiological imaging, and pathological evaluation. Multidisciplinary discussion through tumor board meetings played a critical role in reaching a consensus diagnosis and guiding management. Institutions—especially major referral centers—must prioritize such integrative approaches to handle rare and complex sarcoma presentations effectively.

Oral Presentation

[AP-07] Expression of BCOR immunohistochemical stain in pediatric clear cell sarcoma of kidney in a tertiary care hospital of pakistan

Background

Clear cell sarcoma of kidney (CCSK) is the second most common malignant paediatric tumor after Wilms tumour, with a propensity for late relapse. It exhibits various histological patterns mimicking other pediatric neoplasms, particularly Congenital Mesoblastic nephroma (CMN).

Objective

We evaluated the utility of BCOR antibody in cases of CCSK and CMN.

Materials and Methods

A total of 15 cases diagnosed between 2005-2020 were included. Out of 15 cases,11 were CCSK while 04 were CMN. All the cases were evaluated for expression of BCOR antibody by immunohistochemistry (IHC).

Results

Average age of patients was 3.6 years. 14 were males and 01 female. Histologically, CCSK is comprised of nests and cords of cells separated by fibrovascular septa. The cells contained clear cytoplasm and monotonous round nuclei with fine chromatin and indistinct nucleoli. CMN shows intersecting fascicles of spindle cells against collagenous background. BCOR was positive in 09 out of 11 cases (81%) of CCSK with diffuse and strong expression in 05 cases; while others showed patchy weak to dim nuclear staining. None of the CMN was positive for BCOR.

Conclusion

Nuclear expression of BCOR separates CCSK from its close mimickers.

Oral Presentation

[AP-14] Primary mucinous cystadenocarcinoma of the breast: a rare case with bifocal presentation.

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Introduction

Mucinous cystadenocarcinoma (MCA) of the breast is an exceedingly rare malignant neoplasm with around 33 reported cases, characterized by abundant mucin production with low rate of nodal metastasis. Due to its rarity, limited data are available regarding its clinical behavior, diagnostic criteria, and treatment.

Case Presentation

A 65-year-old woman presented with a two-month history of a right breast lump. A tru-cut biopsy was inconclusive, and staging workup showed no metastasis. She underwent a simple mastectomy. Macroscopic examination revealed two distinct lesions: one measuring 3 × 2.5 × 2 cm and the other 1.2 × 1.1 cm, separated by 1 cm. Microscopically, both foci showed cystic and papillary architecture, lined by stratified columnar epithelium with abundant intracellular and extracellular mucin. About 10–15% of the lesion had high-grade ductal carcinoma in situ with papillary and cribriform patterns. Immunohistochemistry showed CK7 positivity, GATA-3 positivity, CK20 negativity, and triple-negative hormone receptor status. The tumor was diagnosed as Grade 3 MCA with a pathological stage of mpT2(2). The patient completed 12 cycles of chemotherapy and remained healthy at 6-month follow-up.

Discussion and Conclusion

MCA mimics ovarian, pancreatic, and GI tumors; diagnosis requires excluding metastasis through imaging, histology, and immunohistochemistry. The presented case is notable for its uncommon bifocal nature.

Oral Presentation

[AP-20] Distinguishing the tall cell from classic subtypes of papillary thyroid carcinoma on FNA: a cytological and image morphometric study

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Background

Tall cell subtypes of papillary carcinoma thyroid (T-PTC) is defined as tumor cell with a height: breadth ratio of >3. Given the aggressive nature of T-PTC, it's definitive preoperative recognition on FNAC would help the surgeon to plan a more effective treatment regimen.
Objectives: To determine the distinctive cytomorphological features of T-PTC on FNAC.

Materials and methods

Cytological smears of 20 cases of histologically proven T-PTC, 20 cases of the classic PTC (C-PTC) and two cases of columnar PTC were studied. The presence of tall cells (Height: breadth ratio >3) was confirmed by image morphometry. Thirty-six parameters, pertaining to architectural, cytological, nuclear and background characteristics, were analyzed using a semi-quantitative scoring system. The statistical significance of the data was determined using Fisher's probability test and Chi-square test.

Results

Tall cells, spindle cells, tail-like cells and isolated tumor cells were seen in a significantly higher number of cases of T-PTC than C-PTC (p-value <0.05). These features' sensitivity, specificity, PPV, and NPV in identifying T-PTC range from 90-100% and approach 100% when all four features are present.

Conclusions

Key features distinguishing T-PTC from C-PTC on FNA smears include tall cells, spindle-shaped cells, and tail-like cells with irregular nuclear contours.

Oral Presentation

[AP-29] The value of peritumoral lymphocyte infiltration in progression-free survival in NF1, ARID1A, CHEK2 and CDK4 mutant Stage I and II melanoma

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Background

Several tumor suppressor genes and/or oncogenes have been reported to be involved in melanoma pathogenesis. However the role of NF1, ARID1A, CHEK2 and CDK4 is poorly understood in the pathogenesis of melanoma.

Objectives

The current study's objective have been to compare the NF1, ARID1A, CHEK2 and CDK4 mutation status with peritumoral lymphocytic infiltration (TIL) and progression-free survival (PFS) in Stage I and II melanoma.

Materials and methods

Altogether, 118 patients who underwent melanoma surgical treatment at the Riga East University Hospital at the stage IA-IIC from 2012 until 2017 were retrospectively enrolled in the study. The NF1, ARID1A, CHEK2 and CDK4 gene mutations were assessed by NGS.

Results

Patients with ARID1A mutation had significant worse PFS compared to ARID1A wild melanoma (HR=8.22, 95 % C.I = 4.34–17.2; P<0.0001). In additional, ARID1A mutant melanoma with low TIL had significant worse PFS compared to ARID1A mutant melanoma and high TIL infiltration. CHEK2 and NF1 mutations did not associated with PFS. However, patients with CHEK2 mutations had increased TIL infiltration compared to CHEK2 wild melanoma.

Conclusion

ARID1A mutant melanoma characterized by worse PFS compared to ARID1A wild melanoma. Patients with CHEK1 mutant melanoma had increased TIL infiltration compared to CHEK1 wild melanoma.

Oral Presentation

[AP-36] A deep learning-based digital pathology model for predicting MYC, BCL2, and BCL6 rearrangements in diffuse large b-cell lymphoma (DLBCL)

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Background

Diffuse large B-cell lymphoma (DLBCL) is a clinically and biologically heterogeneous disease. In 7%–10% of patients, MYC rearrangement co-occurs with BCL2 and/or BCL6 rearrangements, defining high-grade B-cell lymphoma (HGBCL), which requires intensified treatment and has poor prognosis. FISH is the diagnostic gold standard but is labor-intensive and costly. There is an urgent need for efficient, non-invasive molecular screening tools.

Objectives

To develop and validate an AI-powered model for predicting MYC, BCL2, and BCL6 rearrangement status directly from H&E-stained whole-slide images (WSIs) in DLBCL.

Materials and Methods

WSIs from 1,440 DLBCL patients across five hospitals with matched FISH data were analyzed. Internal data were split into training, validation, and test sets (7:1:2). A multi-label classifier with three MoE-based branches was trained on multi-scale features extracted using a UniV2 backbone. Five-fold cross-validation was used to select the best model. External validation was conducted on three independent cohorts.

Results

The model achieved internal AUCs of 0.902 (MYC), 0.877 (BCL2), and 0.823 (BCL6). External validation yielded average AUCs of 0.882, 0.807, and 0.788, respectively, demonstrating strong generalizability.

Conclusions

This AI-based model enables accurate, rapid, and cost-effective prediction of gene rearrangements, offering a promising tool for molecular pre-screening and personalized risk stratification in DLBCL.

Oral Presentation

[AP-39] Validation of a low-cost whole slide imaging system for pathological diagnosis of gastric ulcers in biopsy specimens by pathology residents

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Background

Gastric ulcer diagnosis is essential but can be difficult, particularly in identifying Helicobacter pylori and incomplete intestinal metaplasia. Whole slide imaging (WSI) is gaining popularity but remains inaccessible to many pathology residents in low-resource settings. Most studies focus on costly systems and experienced pathologists.

Objectives

To evaluate the diagnostic performance of a low-cost WSI system for gastric ulcer biopsy interpretation by pathology residents, focusing on key histologic features compared with glass slides.

Materials and Methods

Sixty-six biopsy slides were scanned at 40× using MoticEasyScan Pro 6 (Motic, Hong Kong). Nine pathology residents interpreted both digital and glass slides in two sessions one month apart, assessing for malignancy, H. pylori, and intestinal metaplasia (IM) subtype. Diagnostic agreement was measured using percent concordance and kappa. Paired t-tests compared interpretation time.

Results

Agreement was highest for malignancy (93.8%, **K**=0.82), followed by IM (82.6%, **K**=0.64), and H. pylori (67.8%, **K**=0.28). Incomplete IM had significantly lower agreement than complete IM. Discordant cases often involved incomplete IM. Most residents took longer with digital slides.

Conclusion

Low-cost WSI is feasible for resident training in gastric biopsy interpretation, especially for malignancy. Additional training is needed for subtler features like H. pylori and incomplete IM.

Oral Presentation

[AP-43] Biological implications of tumor microenvironment in functional and nonfunctional pituitary neuroendocrine tumors

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Background: Functioning and non-functioning pituitary neuroendocrine tumors (PitNETs) exhibit distinct tumor microenvironments(TME) that influence their behavior and clinical characteristics. Functioning PitNETs often exhibit different immune profiles compared to non-functioning tumors, potentially involving interactions with immune cells and immunomodulatory factors. The hormonal milieu can impact promote angiogenesis, crucial for sustaining tumor growth and hormone secretion that influence tumor growth and immune evasion mechanisms.

Material and methods: A retrospective and prospective study over a period of 2.5 years in the department of Histopathology, PGIMER Chandigarh. The cases with complete pituitary hormone panel were selected for the study A TISSUE MICROARRAY (TMA) block was prepared in triplicate for all selected cases. Hematoxylin and Eosin staining was done in all followed by IHC for cellular and acellular TME components.

Results: A total of 76/230 PitNET cases were obtained including 38/76 functioning and non-functioning PitNETs .The GH hormone positivity was present in 28.9% cases , followed by ACTH (10.5%),FSH and PRL in 5.3%.PIT-1 lineage tumors represented (n=29,38.1%) and SF-1 transcription factor in 30 cases(39.4%).CD4+T cell and CD8+T cell infiltration was significantly higher in the Functioning PiTNETs.($p = 0.001$) Near absence of FOXP3 positive T regulatory cells in NF-PiTNET was noted suggesting an immune-competent yet invasive group to treat. VEGF expression by tumor cells correlated with increased expression of programmed cell death ligand 1 (PDL-1) by tumor cells suggesting an increased activity of tumor.($p<0.001$).

Conclusion: The modulation of immune checkpoint pathways such PD-1 and PD-L1 can promotes immune tolerance allowing tumour cells to escape anti-tumour immune responses. These approaches opens up a new paradigm shift in immunotherapy of PiTNETS which might be beneficial in targeting therapy of F-PiTNETs for precision medicine

Oral Presentation

[AP-56] Concordance study comparison of ventana claudin18 (43-14a) and china local claudin18/18.2 class i in vitro diagnostic assays in gastric cancer and pancreatic ductal adenocarcinoma

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Background

Gastric cancer (GC) and pancreatic ductal adenocarcinoma (PDAC) imposed heavy burden on healthcare system. Claudin18.2 (CLDN18.2) is highly expressed in GC and PDAC. With the approval of related targeted drugs, accurate detection of CLDN18.2 has become crucial.

Objectives

This study aimed to compare the concordance of results of different CLDN18/CLDN18.2 antibodies on various detection platforms with the VENTANA Class-I CLDN18 (43-14A) assay on the Ventana platform, providing data to support CLDN18.2 testing in laboratories.

Materials and methods

Thirty GC and 30 PDAC samples were included. Immunohistochemical detection was performed using VENTANA 43-14A, AccuPath CLDN18.2 specific 43-14A, AccuPath CLDN18 LBP-1, AmoyDx 43-14A, AmoyDx CLDN18 MM02. The detection platforms used were Ventana, Leica, and Dako.

Results

1. On Ventana platform, AccuPath 43-14A, AmoyDx 43-14A, LBP-1 showed good concordance with VENTANA 43-14A (accuracy≥0.9, MCC≥0.7), and MM02 showed moderate concordance with VENTANA 43-14A (accuracy=0.85, MCC=0.7). Among GC samples, LBP-1 had the best concordance with VENTANA 43-14A (accuracy=1, MCC=1); among PDAC samples, AmoyDx 43-14A, AccuPath 43-14A and MM02 also showed similar concordance with VENTANA 43-14A (accuracy=0.9, MCC>0.7)

2. On Leica and Dako platforms, four antibodies overall showed good concordance with VENTANA 43-14A/Ventana (accuracy>0.9, MCC>0.7).

Conclusion

This study indicates a range of antibodies can be used for accurate detection of CLDN18/CLDN18.2 on recommended platforms, after initial validation. This study provides important information on the quality of available antibodies/assays for CLDN18.2 testing supporting accurate patient selection for anti-CLDN18.2 targeted therapies.

Oral Presentation

[AP-97] Assessment of whole slide imaging diagnostic performance for oral cavity lesions by general pathologists

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Background: Whole slide imaging (WSI) is widely adopted in pathology, but its accuracy for diagnosing oral cavity lesions by general pathologists remains unclear. Evaluation is needed to support its routine use.

Objectives: To validate and assess accuracy of WSI diagnostic performance for oral cavity lesions by general pathologists.

Materials and methods: Sixty-six oral cavity lesion slides (31 benign, 4 dysplastic, 31 malignant) from 32 biopsies and 34 resections were reviewed. Diagnoses by two head and neck pathologists served as the reference. Four general pathologists evaluated each case using both WSI and light microscopy (LM), separated by a two-week washout.

Results: Diagnostic concordance between WSI and LM was nearly perfect, with kappa values ranging from 0.87 to 1. Minor discrepancies were observed in 11 instances: 9 involved disagreements between dysplasia and benign, and 2 between dysplasia and malignant. The mean diagnostic accuracy with WSI was 94.7%. Benign lesions were overdiagnosed as dysplasia in 9 instances, while dysplasia was underdiagnosed as benign in 5 instances. There was no significant difference in diagnostic time between WSI and LM across all participants.

Conclusion: WSI shows high diagnostic accuracy for oral cavity lesions, comparable to LM, supporting its potential as a reliable alternative.

Oral Presentation

[AP-108] Primary uterine lymphomas: a rare case misdiagnosed as uterine sarcoma in resource limited setting.

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Introduction

Primary uterine lymphomas are rare, constituting only 1.5% of extra nodal non-Hodgkin's lymphomas.

Case History

A 67-year-old woman presented with lower abdominal pain and one episode of vaginal bleeding over two months. Transvaginal ultrasound showed a uniformly enlarged uterus with reduced echogenicity. A hysterectomy was performed.

Macroscopy revealed a gray-white, thickened myometrium with an ill-defined solid area in the fundus, without endometrial involvement. Microscopy showed an infiltrating tumor of atypical large cells with round to ovoid nuclei and scant cytoplasm.

Initial diagnoses included undifferentiated carcinoma or high-grade endometrial stromal sarcoma. Tumor cells were negative for AE1/AE3, ER, vimentin, SMA, desmin, CD10, cyclin-D1, S100, CD34, and synaptophysin, excluding these conditions. Further, tumour cells were positive for CD20 and BCL6, negative for CD3 and cyclin-D1 with a Ki-67 proliferation 60%. CT scan showed no lymphadenopathy or organomegaly. The diagnosis of primary diffuse large B-cell lymphoma (DLBCL) was made with recommendation of MYC, BCL2, and BCL6 gene rearrangements to exclude high-grade B-cell lymphoma.

Discussion and conclusion:

Uterine DLBCL are rare, with a low incidence and non-specific presentation. Accurate diagnosis and targeted therapy are crucial for prognosis. Comprehensive clinical, imaging, histological, and immunophenotypic evaluation is necessary. Awareness and multidisciplinary approaches are key for accurate diagnosis and treatment. Limited molecular testing resources in certain settings contribute to the diagnostic challenge.

Oral Presentation

[AP-113] Multicolour flowcytometry reveals loss of expression of myeloid lineage-associated markers on post-induction residual blasts of patient of acute myeloid leukaemia.

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Background

Multiparameter flow cytometry is common modality for measurable residual disease (MRD) assessment in acute myeloid leukaemia (AML). It relies on detecting leukaemia-associated immunophenotypes (LAIPs) and/or different-from-normal (DfN) approach. Immunophenotypic shifts during treatment can cause misinterpretation of MRD, potentially impacting clinical management.

Objectives

To compare marker-profile of blasts at diagnosis and post-induction bone marrow (BM) in patients of AML.

Materials and Methods

AML cases diagnosed between January 2023 and May 2025 were retrieved from digital archives. The cases positive for post-induction MRD were selected. The immunophenotypic profile of blasts at diagnosis and post-induction BM were recorded as being positive or negative and compared to evaluate shifts in antigen expression.

Results

Out of 461 AML cases diagnosed during 29 months, 131(28.4%) underwent post-induction BM examination. MRD was detected in 71/131(54.2%) cases. Significant immunophenotypic shift (p value of <0.05) in one or more markers was noted in 51/71(71.8%) cases, which included loss of expression in CD123(73.7%), CD15(66.7%), CD36(58.8%), CD64(57.8%), CD13(50%), and CD33(14.8%). No case showed significant gain in marker-expression.

Conclusion

A number of myeloid-lineage-associated markers show loss of expression after exposure to chemotherapy in cases of AML. Hence a DfN-strategy with a large marker-panel is strongly advised for MRD analysis.

Oral Presentation

[AP-128] Turnaround time of surgical pathology reports in a tertiary care teaching hospital in sri lanka

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Aim

This study evaluated the turnaround time (TAT) of surgical pathology reports at the Histopathology Laboratory of Sri Jayewardenepura General Hospital (SJGH), Sri Lanka. The objective was to identify factors contributing to delays and propose strategies to enhance efficiency and support timely clinical decision-making.

Methods

A retrospective audit was conducted on 1,980 surgical pathology specimens received between December 2024 and June 2025. Data collected included specimen type, date of receipt, and date of report issuance. TAT was calculated in working days, excluding weekends and public holidays. The documented reasons for delays were reviewed.

Results

The audit showed that 96.5% of reports were issued within 2 to 12 working days. Of these, 81.4% were completed within 2 to 9 days. The shortest TAT was 2 days; the longest was 34 days. The mean, median, and mode were 8 working days (SD ±2.54). The institutional target is to issue at least 95% of surgical pathology reports within 12 working days or less. Delays beyond 10 days were mainly due to extended fixation, recuts, special stains, IHC, or second opinions. Some delays lacked documentation. Verbal communication of findings and sign-out dates were not recorded.

Conclusion

The audit demonstrated that the institutional target of issuing 95% of reports within 12 working days was met. However, further improvement is warranted. Streamlining test workflows, standardizing reporting, and enhancing documentation are recommended. A re-audit is planned after six months.

Oral Presentation

[AP-129] Development of a proteomic-based machine learning classifier for identifying the tissue of origin in squamous cell carcinoma

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Background

Squamous cell carcinoma (SCC) accounts for 15% of cancer cases with unknown primary origin (SCCUP), presenting significant diagnostic and therapeutic challenges. Current prediction methods, such as histopathological examination and immunohistochemical panels, are limited by low site specificity and shared histological features among SCC subtypes.

Objectives

This study aims to develop a proteomic-based classifier to accurately identify the tissue of origin for SCCUP.

Materials and methods

Formalin-fixed, paraffin-embedded (FFPE) samples from two SCC cohorts were analyzed: the Fudan University Shanghai Cancer Center (FUSCC) cohort (324 patients) and the multi-center cohort (MCSCC cohort, 63 patients from six hospitals). Mass spectrometry-based label-free proteomic analysis and a machine-learning algorithm were developed to differentiate SCC primary sites.

Results

We developed a 39-protein biomarker classifier (39PBC) using a support vector machines model with LASSO regression for feature selection. The 39PBC achieved an AUC of 0.924 and accuracy of 87.8% on the training set, and an AUC of 0.961 and accuracy of 87.2% on the internal validation set. It classified 87.3% of samples correctly in the MCSCC cohort with an AUC of 0.971. Additionally, the 39PBC demonstrated high robust in 12 cases of SCCUP.

Conclusion

This proteomic classifier offers a clinically feasible solution for identifying SCCUP origins, enhancing personalized treatment strategies.

Oral Presentation

[AP-139] Evaluation of the activation of the hypoxia-inducible factor-1 alpha (HIF-1α) pathway and its relationship with the tumor immune microenvironment and marker of tumor invasiveness in myxopapillary ependymomas

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Background:
Myxopapillary ependymomas (MPEs) are rare spinal tumors primarily affecting adolescents and young adults. Previously classified as WHO Grade 1, their potential for recurrence and cerebrospinal fluid dissemination led to reclassification as Grade 2. Unlike other ependymomas, MPEs exhibit distinct metabolic features, including a Warburg phenotype driven by HIF-1α activation.
Objective:
To assess the expression of hypoxia, glycolytic, immune checkpoint and invasion markers in spinal ependymomas, particularly MPEs, and correlate findings with clinical outcomes.
Methods:
A retrospective and prospective study (2012–2022) analyzed 77 spinal ependymomas from 75 patients. Immunohistochemistry was performed using antibodies against HIF-1α, HK-II, PDK1, PKM2, LDH, CAIX, GLUT1, CD8, PD-L1, and MMP14. Clinical and pathological data were statistically analyzed.
Results:
MPEs showed higher expression of HIF-1α (90.9%), HK-II (57.5%), and PDK1 (92%) than Grade 2 ependymomas. PKM2 and LDH were positive in nearly all cases. CAIX and GLUT1 were negative; PD-L1 and CD8 expression were minimal. MMP14 was strongly expressed in MPEs. Of 31 cases with follow-up, 8 recurred (median: 14 months), and 3 patients died. No significant survival difference was found between MPEs and Grade 2 tumors.
Conclusion:
MPEs exhibit distinct metabolic and invasive profiles, supporting their Grade 2 classification and identifying potential therapeutic targets.

Oral Presentation

[AP-151] Atypical presentation of lupus nephritis in a young girl with systemic lupus erythematosus

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Introduction

Kidney involvement is seen in 20 to 65% of diagnosed Systemic lupus erythematosus (SLE) patients, associated with activation of classic complement path way, presenting as glomerular, tubular, interstitial or vascular disease, significantly increasing morbidity and mortality.

Case report

A 17-year-old girl presented with generalized body swelling and low-grade fever preceding sore throat. She was managed as post streptococcal glomerular nephritis. She subsequently developed a urinary tract infection. Since she was not responding to treatment a renal biopsy was performed.

Renal biopsy showed a diffuse proliferative glomerular nephritis with mesangial and endocapillary cellularity. Cellular crescents were seen with wire loops, hyaline thrombi and fibrinoid necrosis. Basement membranes were thickened with focal spike formation confirmed on silver stain. Tubulo interstitium shows extensive mixed inflammation with marked interstitial edema. Blood vessels showed trans mural inflammation.

Immunofluorescence for IgM, Ig A, C3and C1q show strong positivity in glomerular basement membrane, mesangium and in tubules.

With the developing clinical features of alopecia and arthritis with ANA and Anti Ro antibody positivity, low C3, C4 levels and other supporting investigations a diagnosis of SLE was made. Class IV+V lupus nephritis with an acute interstitial nephritis and vasculitis was diagnosed on renal biopsy.

Discussion and conclusion

A high index of suspicion for SLE is needed with unresolving renal disease in a young female patient. Once severity and activity of lupus nephritis and extent of chronic damage to kidney has been defined anti-inflammatory and immunosuppressive agents are mainstay of therapy. Ongoing infection and lupus nephritis with inclusion of both intravenous antibiotics and steroids in this patient the management was challenging. The patient expired while awaiting plasma exchange.

Oral Presentation

[AP-158] Few TTF-1 positive cells in the pleural fluid cell block: What should it be?

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Background

Pleural fluid sometimes contains some atypical cells in cell block specimens. TTF-1 immunostaining is used to identify lung adenocarcinoma cells, which can be problematic if only a few positive cells are present.

Objectives

To find the most likely cause of the cases that showed only a few TTF-1-positive cells in the pleural fluid cell block.

Materials and methods

Retrospective, observational study from January 2020 to June 2025 in the Kameda hospital. Thirteen cases of a few TTF-1-positive cells in the pleural fluid cell block were extracted. The patient's data was reviewed in the EMR, and some clinical data relevant to the cause of the pleural effusion were noted.

Results

In 4/13 cases (30.8%), malignancy was suspected, 6/13 cases (46.1%) were most likely due to non-malignant processes, and 3/13 cases (23.1%) remained inconclusive. In the favor non-malignant processes group, one patient shows heart failure, one patient shows aspiration pneumonia with heart failure, one patient is considered empyema, and three patients have unknown causes.

Conclusion

Presence of a few TTF-1-positive cells in pleural fluid may not always indicate malignancy; interpretation should be done with caution, and correlation with clinical and radiologic findings may be necessary.

Oral Presentation

[ASD-02] Utility of BIOCHIP mosaic in diagnosis of autoimmune blistering disorders

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Background

BIOCHIP mosaic-based IIF is a recent diagnostic modality for diagnosis of autoimmune blistering diseases (AIBDs).

Objectives

This study was conducted to evaluate the diagnostic accuracy of BIOCHIP mosaic in AIBDs and compare its performance with ELISA.

Materials and methods

A total of 90 DIF proven AIBD cases (47 subepidermal and 43 intraepidermal) were subjected to multiparametric ELISA and BIOCHIP. In house salt split IIF was performed for SIBDs.

Results

Among the SIBD cases (n=47), 'n' serration pattern was seen in 43 cases (91%). In house salt split IIF was positive in 45 cases (96%), with majority showing roof binding. Sensitivity and specificity of ELISA for subepidermal AIBDs were 69.5%, and 100%, while for intraepidermal AIBDs was they were 86%, and 95.6%, respectively. Sensitivity and specificity of BIOCHIP for subepidermal AIBDs were 58.6% and 100% respectively, while for intraepidermal AIBDs, the values were 65.1% and 100%. Based on ELISA results, the diagnosis of five intraepidermal AIBDs were revised.

Conclusion

The sensitivity of BIOCHIP remained low compared to ELISA for both intraepidermal and subepidermal AIBDs. Although BIOCHIP in different previous studies have shown encouraging results, we did not find it very useful for the diagnosis of AIBDs in our setting.

Oral Presentation

[ASD-04] A Clinicopathological spectrum of cutaneous glomus tumours: Study of 165 Cases from a single referral centre

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Background

Glomus tumours are rare, benign perivascular neoplasms accounting for less than 2% of soft tissue tumours, commonly found in subungual regions.

Objective

To analyze histological features of 165 glomus tumours and evaluate if any parameters aid in differentiating subtypes.

Methods

A retrospective study was conducted on 165 patients over 11 years (2014–2025) at a tertiary care hospital. Data included demographics, tumour site, size, histology, and immunohistochemistry.

Results

Females (57.5%) were slightly more affected, with peak incidence in the 3rd–4th decade. Pain (73.5%) and swelling (86%) were common symptoms. Subungual location was most frequent. Solid glomus tumours comprised 77.5%, glomangiomas 17.5%, and glomangiomyoma 0.6% respectively. Rare histologic features included myxoid (0.6%) and cystic (1.2%) changes. Malignant glomus tumours (1.2%) and tumours of uncertain malignant potential (3%) were larger (3–6 cm), with higher mitotic activity(4-6/50HPF), and necrosis distinguishing them from benign subtypes.

Discussion

Although typically benign, glomus tumours may mimic other dermal/vascular lesions. Larger or deep lesions require close histologic scrutiny.

Conclusion

Accurate diagnosis relies on combined clinical, histologic, and immunophenotypic assessment. This study represents the largest single-institution cohort of glomus tumours.

Oral Presentation

[ASD-07] Loss of Kdm3a Suppresses Basal Cell Carcinoma Development in p53-R172H Mice

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Background

The p53-R175H mutation (mouse analog: p53-R172H) is a well-characterized gain-of-function variant commonly found in human cancers. While basal cell carcinoma (BCC), the most common human skin cancer, is typically driven by activation of Hedgehog signaling, the role of mutant p53 in BCC remains unclear. Kdm3a, a histone demethylase, supports oncogenic transcriptional programs and may modulate p53-driven tumorigenesis.

Objectives

To determine whether Kdm3a deletion can suppress BCC formation in a p53-R172H mouse model.

Materials and methods

Two mouse cohorts (p53 R172H/+, Kdm3a +/+ and p53 R172H/+, Kdm3a -/-) were generated and genotyped. Mice were examined post-mortem, and skin tumors' morphologic and immunophenotypic features were assessed.

Results

BCC formation was identified in 3 of 28 (10.7%) p53 R172H/+, Kdm3a +/+ mice, but was absent in the p53 R172H/+, Kdm3a -/- group (0/27).

Conclusion

Mutant p53-R172H can promote BCC formation in mice, revealing a novel oncogenic role in skin cancer. Loss of Kdm3a abrogates this effect, highlighting its critical role as an epigenetic modifier in tumor maintenance.

Case discussion

[ASD-02] Mixed Histiocytosis Unveiled by skin lesions: a case mimicking Pott's spine

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Introduction

Mixed histiocytosis is a rare entity involving both Langerhans cell histiocytosis (LCH) and non-Langerhans cell histiocytosis (NLCH), with overlapping systemic manifestations that may delay diagnosis.

Case presentation

A 25-year-old man presented with subtle yellow-brown papules on the cheeks and eyelids, mandibular swelling, polydipsia, and polyuria. He had previously received anti-tubercular therapy and had undergone spinal surgery for presumed Pott's spine. Skin biopsy revealed Touton giant cells and a mixed inflammatory infiltrate consistent with NLCH. Bone biopsy from lytic lesions was done with a provisional diagnosis of Erdhiem-Chester disease (bony NLCH) in the skull and mandible; however it demonstrated LCH, confirmed by CD1a and Langerin positivity. Imaging showed multifocal osseous lesions and pituitary involvement; BRAFV600E was negative. A final diagnosis of mixed histiocytosis was made, and the patient was started on vinblastine and prednisolone.

Discussion and conclusion

This case illustrates the diagnostic challenge of adult-onset LCH mimicking spinal tuberculosis. Mild xanthogranulomas proved pivotal in recognizing mixed histiocytosis. Importantly, bone lesions in such cases may arise from either or both histiocytic processes and can coexist within the same biopsy. Dermatopathologists must remain alert to these patterns to facilitate early and accurate diagnosis, enabling appropriate therapy.

Case discussion

[ASD-05] A diagnostically challenging granulomatous vulvar biopsy

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Introduction

Vulval mycosis fungoides (MF) is exceptionally rare. To the best of our knowledge this is the first reported case of the rare granulomatous variant.

Case presentation

We describe a case of a 64-year-old lady with a 3-year history of scaly, eczematous swelling of the vulva. The initial biopsies showed granulomatous inflammation with differentials that included infection, Crohn's disease and sarcoidosis. The lesion gradually spread to the perineum and buttock, became indurated and ulcerated. Her serum ACE, microbiological, radiological investigation, and colonoscopy were normal.

Incisional biopsy showed confluent non-necrotizing granulomas with multinucleated cells extending through the upper dermis into the subcutis. There was scant lymphocytic infiltrate with minimal cytological atypia. There was no epidermotropism, folliculotropism or syringotropism. The infiltrate was predominantly CD4 T-cells with no loss of pan-T cell markers but showed complete loss of CD7. Monoclonality was proven with T-cell gene rearrangement studies.

Discussion and conclusion

Granulomatous MF lacks specific clinical and histological features, and is often initially misdiagnosed as granulomatous dermatitis. Furthermore the possibility of granulomatous slack skin syndrome cannot be excluded as early treatment may arrest the development of hanging skin folds.

This case highlights the need to consider lymphoma in the differential diagnosis of granulomatous vulvar lesions.

Case discussion

[ASD-13] A case of xanthoma disseminatum with cutaneous, ocular, musculoskeletal, and pharyngeal involvement in a 29-year-old female

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Introduction

Xanthoma disseminatum (XD) is a rare, benign non-Langerhans cell histiocytosis characterized by progressive xanthomatous papules and nodules, typically occurring in normolipemic individuals. Fewer than 200 cases have been reported worldwide. Although primarily cutaneous and mucosal, XD may involve ocular, pharyngeal, and visceral sites, resulting in functional impairment. Diagnosis relies on histopathology and immunohistochemistry, while management remains challenging due to the absence of standardized treatment protocols.

Case presentation

We present a 29-year-old woman with a one-year history of gradually spreading yellowish papules and nodules, initially on the axillae, later involving the face, forearms, sclerae, and oral mucosa. Biopsies from skin, conjunctiva, and eyelid masses showed dense dermal infiltration of foamy histiocytes, multinucleated giant cells, and eosinophils. Immunohistochemistry was CD68-positive and pancytokeratin-negative, confirming XD. Systemic workup, including lipid profile and malignancy screening, was unremarkable. Despite high-dose statin therapy, lesions progressed, and the patient developed dysphagia. Videostroboscopy revealed xanthomatous involvement of the pharynx. Multispecialty referral, including Hematology, was initiated for further evaluation and consideration of cladribine (2-chlorodeoxyadenosine) therapy.

Discussion and conclusion

This case highlights the diagnostic and therapeutic challenges in XD. Early histopathologic and immunohistochemical confirmation is crucial, but ongoing assessment for systemic involvement and coordination among specialists is equally important—especially in the absence of standardized treatment.

Case discussion

[ASD-26] Lepromatous Hansen's disease presenting as atypical onychopathy: a case report

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Val Constantine S. Cua, MD, FPDS

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Introduction

Hansen's disease is typically associated with skin lesions and peripheral neuropathies. This case highlights onychopathy as the predominant initial complaint and unusual presentation of lepromatous Hansen's disease. Patients are often referred for nail abnormalities with suspicion of other conditions, underscoring the importance of considering systemic etiologies, even in seemingly localized presentations.

Case presentation

A 38-year-old female presented with a year of progressive nail changes of onycholysis, onychoschizia, and subungual hematomas, affecting toes and fingernails. This coincided with facial and ear skin thickening, madarosis, digit thickening, and peripheral paresthesias. Initial treatments for presumed fungal infection and warts were ineffective. Neurological assessment indicated nerve enlargement and loss of protective sensation peripherally. Biopsy of the nail bed revealed dense nodular to diffuse infiltrates of foamy histiocytes, lymphocytes, plasma cells, occasional neutrophils, rare eosinophils, and numerous globi in the dermis– confirming a diagnosis of lepromatous Hansen's disease.

Discussion and conclusion

This case reaffirms the varied clinical spectrum of Hansen's disease. The patient's primary presentation of onychopathy, an uncommon manifestation, led to delayed diagnosis. Therefore, a high index of suspicion is needed for diagnosing systemic diseases like Hansen's when encountering unusual or treatment-resistant dermatological conditions, particularly onychopathy. Early and accurate diagnosis is crucial for effective management and preventing complications.

Case discussion

[ASD-33] A case report of sarcomatoid porocarinoma with unusual clinicopathological presentation and confirmatory YAP1-NUTM1 fusion

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Introduction

Sarcomatoid porocarcinoma is a rare histopathological variant of porocarcinoma - several differential diagnoses. Recent explorations of the YAP1-NUTM1 and YAP1-MAML2 fusion in poroma and porocarinoma have proven to be valuable tools for precise diagnosis, particularly in cases lacking typical features of poroid tumors.

Case presentation

An 84-year-old Middle Eastern woman presented with a long-standing history of a solitary, growing skin neoplasm on her right shin. Physical examination revealed a 10-cm, firm, poorly mobile mass extending from superficial skin surface to the subcutis. An initial biopsy exhibited sarcomatoid hyperplasia with pseudovascular pattern against an extensive desmoplastic background. IHC staining showed positive for pan-cytokeratin and weak expression of CD31 marker, initially raising the question of a malignant vascular neoplasm. Additional immunohistochemical staining exhibited positivity for CK5, p40, p63, and NUT1 protein, while negative for Desmin, ERG, and FLI-1. No evidence of specific differentiations, such as squamous, melanocytic, or ductal morphologies, was observed. A comprehensive gene fusion panel identified the YAP1-NUTM1 fusion. Therefore, a final diagnosis of sarcomatoid porocarcinoma was made.

Discussion and conclusion

Our patient represents a firstly reported, rare and challenging clinicopathological entity, which underscores the evolving role of molecular biology in the diagnosis of primary cutaneous malignancies.

Case discussion

[ASD-43] Amelanotic melanoma with smooth muscle differentiation

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Introduction

Malignant melanomas may show various divergent differentiation patterns, including smooth muscle, fibroblastic, neuroendocrine, and epithelial types. These variations can make diagnosis difficult, particularly when melanocyte markers are negative.

Case presentation

A 71-year-old woman presented with a mass on her right first toenail. The nail plate had been removed during a previous biopsy. The tumor was ulcerated and bled easily. Histopathology showed pleomorphic spindle and epithelioid cells. Immunohistochemically, the tumor was negative for CD34, HMB45 and Melan-A; positive for S100, SOX10, SMA and PRAME; and focally positive for desmin. Ki-67 was over 30%. Despite negativity for conventional melanocytic markers, PRAME and SMA positivity supported the diagnosis of amelanotic melanoma with smooth muscle differentiation.

Discussion and conclusion

Melanoma with smooth muscle differentiation is extremely rare, with only five cases reported in the English literature. This is the first case confirmed by PRAME expression, emphasizing its diagnostic value in melanoma with unusual smooth differentiation pattern.

APPENDIX 1
INFORMATION FOR AUTHORS

All authors listed in a paper submitted to Asian Archives of Pathology (AAP) must have contributed substantially to the work. It is the corresponding author who takes responsibility for obtaining permission from all co-authors for the submission. When submitting the paper, the corresponding author is encouraged to indicate the specific contributions of all authors (the author statement, with signatures from all authors and percentage of each contribution can be accepted). Examples of contributions include: designed research, performed research, contributed vital new reagents or analytical tools, analysed data, and wrote the paper. An author may list more than one type of contribution, and more than one author may have contributed to the same aspect of the work.

Authors should take care to exclude overlap and duplication in papers dealing with related materials. See also paragraph on Redundant or Duplicate Publication in "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" at http://www.icmje.org/index.html.

The submitted manuscripts will be reviewed by three members of the Editorial Board or three expert reviewers from different institutions. At the discretion of the Editorial Board, the manuscripts may be returned immediately without full review, if deemed not competitive or outside the realm of interests of the majority of the readership of the Journal. The decision (reject, invite revision, and accept) letter will be coming from the Editorial Board who has assumed responsibility for the manuscript's review. The editor's decision is based not just on technical merit of the work, but also on other factors such as the priority for publication and the relevance to the Journal's general readership. All papers are judged in relation to other submissions currently under consideration.

Categories of Manuscripts

1. Letters to the Editor

The letters to the editor are the reactions to any papers published in AAP. These letters will be reviewed by the Editorial Board and sent to the authors of the original paper with an invitation to respond. Letters and eventual responses will be published together, when appropriate.

- *Word Count: 300 – 500 words (excluding references and figure or table legends)*
- *Abstract: Not required*
- *References: Maximum of 10*
- *Figure or Table: Maximum of 1 (if needed)*

2. Original Articles

The original articles are the researches describing the novel understanding of anatomical pathology, clinical pathology (laboratory medicine), forensic medicine (legal medicine or medical jurisprudence), molecular medicine or pathobiology. Systematic reviews, meta-analyses and clinical trials are classified as articles. The articles should be clearly and concisely written in the well-organised form (see ***Organisation of Manuscripts***): abstract; introduction; materials and methods; results; discussion; and conclusions. The manuscripts that have passed an initial screening by the Editorial Board will be reviewed by two or more experts in the field.

- *Word Count: 3,000 – 5,000 words (excluding abstract, references, and figure or table legends)*
- *Structured Abstract (see* ***Organisation of Manuscripts****): 150 – 200 words*
- *References: Maximum of 150*
- *Figures or Tables: Maximum of 6*

3. Review Articles

The review articles are generally invited by the Editor-in-Chief. They should focus on a topic of broad scientific interest and on recent advances. These articles are peer-reviewed before the final decision to accept or reject the manuscript for publication. Therefore, revisions may be required.

- *Word Count: 3,000 – 5,000 words (excluding abstract, references, and figure or table legends)*
- *Unstructured Abstract: 150 – 200 words*
- *References: Maximum of 150*
- *Figures or Tables: Maximum of 4*

4. Case Reports

AAP limits publication of case reports to those that are truly novel, unexpected or unusual, provide new information about anatomical pathology, clinical pathology (laboratory medicine) or forensic medicine (legal medicine or medical jurisprudence). In addition, they must have educational value for the aforementioned fields. The journal will not consider case reports describing preventive or therapeutic interventions, as these generally require stronger evidence. Case reports that involve a substantial literature review should be submitted as a review article. The submitted case reports will undergo the usual peer-reviewed process.

- *Word Count: 1,200 – 2,000 words (excluding abstract, references, and figure or table legends)*

- *Unstructured Abstract: 150 – 200 words*
- *References: Maximum of 20*
- *Figures or Tables: Maximum of 4*

5. Case Illustrations

Case illustrations are aimed to provide education to readers through multidisciplinary clinicopathological discussions of interesting cases. The manuscript consists of a clinical presentation or description, laboratory investigations, discussion, final diagnosis, and up to 5 take-home messages (learning points). Regarding continuous learning through self-assessment, each of the case illustrations will contain 3 – 5 multiple choice questions (MCQs) with 4 – 5 suggested answers for each question. These MCQs are placed after the final diagnosis and the correct answers should be revealed after the references. The questions and take-home messages (learning points) are included in the total word count. The manuscripts that have passed an initial screening by the Editorial Board will be reviewed by two experts in the field.

- *Word Count: 1,000 – 2,000 words (excluding references and figure or table legends)*
- *Abstract: Not required*
- *References: Maximum of 10*
- *Figures: Maximum of 2*
- *Tables: Maximum of 5*

6. Technical Notes

The technical notes are brief descriptions of scientific techniques used in the anatomical pathology, clinical pathology (laboratory medicine), forensic medicine (legal medicine or medical jurisprudence), molecular medicine or pathobiology. The submitted manuscripts are usually peer-reviewed.

- *Word Count: Maximum of 1,000 words (excluding references and figure or table legends)*
- *Abstract: Not required*
- *References: Maximum of 5*
- *Figures or Tables: Maximum of 2*

Organisation of Manuscripts

1. General Format

The manuscripts written in English language are preferable. However, Thai papers are also acceptable, but their title pages, abstracts, and keywords must contain both Thai and English. These English and Thai manuscripts are prepared in A4-sized Microsoft Word documents with leaving 2.54-cm (1-inch) margins on all sides. All documents are required

to be aligned left and double-spaced throughout the entire manuscript. The text should be typed in 12-point regular Times New Roman font for English manuscript and 16-point regular TH SarabunPSK font for Thai manuscript.

The running titles of English and Thai manuscripts are placed in the top left-hand corner of each page. They cannot exceed 50 characters, including spaces between words and punctuation. For the header of English paper, the running title will be typed in all capital letters. The page number goes on the top right-hand corner.

Footnotes are not used in the manuscripts, but parenthetical statements within text are applied instead and sparingly. Abbreviations should be defined at first mention and thereafter used consistently throughout the article. The standard abbreviations for units of measure must be used in conjunction with numbers.

All studies that involve human subjects should not mention subjects' identifying information (e.g. initials) unless the information is essential for scientific purposes and the patients (or parents or guardians) give written informed consent for publication.

2. Title Page

The title page is the first page of the manuscripts and must contain the following:

- The title of the paper (not more than 150 characters, including spaces between words)
- The full names, institutional addresses, and email addresses for all authors (If authors regard it as essential to indicate that two or more co-authors are equal in status, they may be identified by an asterisk symbol with the caption "These authors contributed equally to this work" immediately under the address list.)
- The name, surname, full postal address, telephone number, facsimile number, and email address of the corresponding author who will take primary responsibility for communication with AAP.
- Conflict of interest statement (If there are no conflicts of interest for any author, the following statement should be inserted: "The authors declare that they have no conflicts of interest with the contents of this article.")

3. Abstract

A structured form of abstract is used in all Original Article manuscripts and must include the following separate sections:

- *Background: The main context of the study*
- *Objective: The main purpose of the study*
- *Materials and Methods: How the study was performed*
- *Results: The main findings*

- *Conclusions: Brief summary and potential implications*
- *Keywords: 3 – 5 words or phrases (listed in alphabetical order) representing the main content of the article*

4. Introduction

The Introduction section should clearly explain the background to the study, its aims, a summary of the existing literature and why this study was necessary or its contribution to the field.

5. Materials and Methods

The Materials and Methods section must be described in sufficient detail to allow the experiments or data collection to be reproduced by others. Common routine methods that have been published in detail elsewhere should not be described in detail. They need only be described in outline with an appropriate reference to a full description. Authors should provide the names of the manufacturers and their locations for any specifically named medical equipment and instruments, and all chemicals and drugs should be identified by their systematic and pharmaceutical names, and by their trivial and trade names if relevant, respectively. Calculations and the statistical methods employed must be described in this section.

All studies involving animal or human subjects must abide by the rules of the appropriate Internal Review Board and the tenets of the recently revised Helsinki protocol. Hence, the manuscripts must include the name of the ethics committee that approved the study and the committee's reference number if appropriate.

6. Results

The Results section should concisely describe the findings of the study including, if appropriate, results of statistical analysis which must be presented either in the text or as tables and figures. It should follow a logical sequence. However, the description of results should not simply repeat the data that appear in tables and figures and, likewise, the same data should not be displayed in both tables and figures. Any chemical equations, structural formulas or mathematical equations should be placed between successive lines of text. The authors do not discuss the results or draw any conclusions in this section.

7. Discussion

The Discussion section should focus on the interpretation and the significance of the findings against the background of existing knowledge. The discussion should not repeat

information in the results. The authors will clearly identify any aspects that are novel. In addition, there is the relation between the results and other work in the area.

8. Conclusion

The Conclusion section should state clearly the main summaries and provide an explanation of the importance and relevance of the study reported. The author will also describe some indication of the direction future research should take.

9. Acknowledgements

The Acknowledgements section should be any brief notes of thanks to the following:

- *Funding sources*
- *A person who provided purely technical help or writing assistance*
- *A department chair who provided only general support*
- *Sources of material (e.g. novel drugs) not available commercially*

Thanks to anonymous reviewers are not allowed. If you do not have anyone to acknowledge, please write "Not applicable" in this section.

10. References

The Vancouver system of referencing should be used in the manuscripts. References should be cited numerically in the order they appear in the text. The authors should identify references in text, tables, and legends by Arabic numerals in parentheses or as superscripts. Please give names of all authors and editors. The references should be numbered and listed in order of appearance in the text. The names of all authors are cited when there are six or fewer. When there are seven or more, only the first three followed by "et al." should be given. The names of journals should be abbreviated in the style used in Index Medicus (see examples below). Reference to unpublished data and personal communications should not appear in the list but should be cited in the text only (e.g. A Smith, unpubl. Data, 2000).

- *Journal article*

1. Sibai BM. Magnesium sulfate is the ideal anticonvulsant in preeclampsia – eclampsia. Am J Obstet Gynecol 1990; 162: 1141 – 5.

- *Books*

2. Remington JS, Swartz MN. Current Topics in Infectious Diseases, Vol 21. Boston: Blackwell Science Publication, 2001.

- *Chapter in a book*

3. Cunningham FG, Hauth JC, Leveno KJ, Gilstrap L III, Bloom SL, Wenstrom KD. Hypertensive disorders in pregnancy. In: Cunningham FG, Hauth JC, Leveno KJ, Gilstrap L III, Brom SL, Wenstrom KD, eds. Williams Obstetrics, 22nd ed. New York: McGraw-Hill, 2005: 761 – 808.

11. Tables

The tables should be self-contained and complement, but without duplication, information contained in the text. They should be numbered consecutively in Arabic numerals (Table 1, Table 2, etc.). Each table should be presented on a separate page with a comprehensive but concise legend above the table. The tables should be double-spaced and vertical lines should not be used to separate the columns. The column headings should be brief, with units of measurement in parentheses. All abbreviations should be defined in footnotes. The tables and their legends and footnotes should be understandable without reference to the text. The authors should ensure that the data in the tables are consistent with those cited in the relevant places in the text, totals add up correctly, and percentages have been calculated correctly.

12. Figure Legends

The legends should be self-explanatory and typed on a separate page titled "Figure Legends". They should incorporate definitions of any symbols used and all abbreviations and units of measurement should be explained so that the figures and their legends are understandable without reference to the text.

If the tables or figures have been published before, the authors must obtain written permission to reproduce the materials in both print and electronic formats from the copyright owner and submit them with the manuscripts. These also follow for quotes, illustrations, and other materials taken from previously published works not in the public domain. The original resources should be cited in the figure captions or table footnotes.

13. Figures

All illustrations (line drawings and photographs) are classified as figures. The figures should be numbered consecutively in Arabic numerals (Figure 1, Figure 2, etc.). They are submitted electronically along with the manuscripts. These figures should be referred to specifically in the text of the papers but should not be embedded within the text. The following information must be stated to each microscopic image: staining method, magnification (especially for electron micrograph), and numerical aperture of the objective lens. The authors are encouraged to use digital images (at least 300 d.p.i.) in .jpg or .tif

formats. The use of three-dimensional histograms is strongly discouraged when the addition of these histograms gives no extra information.

14. Components

14.1. Letters to the Editor

The Letter to the Editor manuscripts consist of the following order:

- *Title Page*
- *Main Text*
- *References*
- *Table (if needed)*
- *Figure Legend (if needed)*
- *Figure (if needed)*

14.2. Original Articles

The Original Article manuscripts consist of the following order:

- *Title Page*
- *Structured Abstract*
- *Introduction*
- *Materials and Methods*
- *Results*
- *Discussion*
- *Conclusions*
- *Acknowledgements*
- *References*
- *Table (s)*
- *Figure Legend (s)*
- *Figure (s)*

14.3. Review Articles

The Review Article manuscripts consist of the following order:

- *Title Page*
- *Unstructured Abstract*
- *Introduction*
- *Main Text*
- *Conclusions*
- *Acknowledgements*
- *References*
- *Table (s)*
- *Figure Legend (s)*
- *Figure (s)*

14.4. Case Reports

The Case Report manuscripts consist of the following order:

- *Title Page*
- *Unstructured Abstract*
- *Introduction*
- *Case Description*
- *Discussion*
- *Conclusions*
- *Acknowledgements*
- *References*
- *Table (s)*
- *Figure Legend (s)*
- *Figure (s)*

14.5. Case Illustrations

The Case Illustration manuscripts consist of the following order:

- *Title Page*
- *Clinical Presentation or Description*
- *Laboratory Investigations*
- *Discussion*
- *Final Diagnosis*
- *Multiple Choice Questions (MCQs)*
- *Take-Home Messages (Learning Points)*
- *Acknowledgements*
- *References*
- *Correct Answers to MCQs*
- *Table (s)*
- *Figure Legend (s)*
- *Figure (s)*

14.6. Technical Notes

The Technical Note manuscripts consist of the following order:

- *Title Page*
- *Introduction*
- *Main text*
- *Conclusions*
- *Acknowledgements*
- *References*
- *Table (s)*
- *Figure Legend (s)*

- *Figure (s)*

Proofreading

The authors of the accepted manuscripts will receive proofs and are responsible for proofreading and checking the entire article, including tables, figures, and references. These authors should correct only typesetting errors at this stage and may be charged for extensive alterations. Page proofs must be returned within 48 hours to avoid delays in publication.

Revised Manuscripts

In many cases, the authors will be invited to make revisions to their manuscripts. The revised manuscripts must generally be received by the Editorial Board within 3 months of the date on the decision letter or they will be considered a new submission. An extension can sometimes be negotiated with the Editorial Board.

APPENDIX 2
BENEFITS OF PUBLISHING WITH ASIAN ARCHIVES OF PATHOLOGY

Asian Archives of Pathology (AAP) is an open access journal. Open Access makes your works freely available to everyone in the world. It provides a significant boost to the readership of your articles, and has been shown to have an increase in positive influence on citations and reuse. Hence, open-access leads to more recognition for our esteemed authors.

The journal has been sponsored by the Royal College of Pathologists of Thailand. We have the policy to disseminate the verified scientific knowledge to the public on a non-profit basis. Hence, we have not charged the authors whose manuscripts have been submitted or accepted for publication in our journal.

Since AAP is also a peer-reviewed journal, the submitted manuscripts will be reviewed by three members of the Editorial Board or three expert reviewers from different institutions. The decision on these manuscripts is processed very fast without any delay and in shortest possible time. The processing period is 1 – 2 weeks. These decisions of the reviewers are unbiased and the decision (reject, invite revision, and accept) letter coming from the Editorial Board is always conveyed to the authors.

APPENDIX 3
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Step 1: Access www.asianarchpath.com

Step 2: If you did not register before, please create an account first.

Step 3: Login with your username and password.

Step 4: Click the "+ New Submission" button on the upper right-hand side of the page.

Step 5: Proceed to fill up the Submission Form online and follow the directions given therein.

Step 6: Upload your manuscript file (s).

Step 7: Re-check the content of your manuscript (s) and the uploaded file (s) more carefully prior to the submission. If you have submitted your manuscript file (s) incorrectly, you must contact Editor-in-Chief of Asian Archives of Pathology immediately. The Editor-in-Chief can clear the incorrect attempt and allow you another submission.

Step 8: Click the "Submit Manuscript" button under Important Notice.

If you have any further enquiries, please do not hesitate to contact the Journal.

APPENDIX 4
CONTACT THE JOURNAL

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Thank you

Assistant Professor Dr Chetana Ruangpratheep
MD, FRCPath (Thailand), MSc, PhD
Editor-in-Chief of Asian Archives of Pathology

ACADEMIC MEETINGS AND CONFERENCES

Announcements of academic meetings and conferences that are of interest to the readers of Asian Archives of Pathology (AAP) should be sent to the Editor-in-Chief at least 3 months before the first day of the month of issue. The contact information is shown below.

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WHAT IS INSIDE THIS ISSUE?