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ABSTRACT

IAP001 Diagnostic utility of PAX8 and PAX2 immunohistochemistry markers in primary and metastatic ovarian epithelial neoplasm

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Introduction: Ovarian cancer is one of the most lethal forms of cancer in females and currently lacks useful markers and efficient screening methods due to the complexity of variable subtypes. We evaluated the expression of PAX8 and PAX2 in primary and metastatic ovarian epithelial neoplasms. *Material and methods:* A total of 51 formalin-fixed paraffin-embedded cases diagnosed as ovarian epithelial neoplasms were selected for this study. The tumour cells were stained with PAX8 and PAX2 immunohistochemical antibodies and the expressions were evaluated. *Results*: There were 38 cases of serous carcinoma, two cases of serous borderline tumour, 10 cases of primary ovarian mucinous neoplasm (9 mucinous borderline tumour and 1 mucinous carcinoma), and a case of endometrioid carcinomas. Out of 51 cases, 13 were metastatic ovarian carcinoma. PAX8 was expressed in all (38/38) serous carcinoma cases (100%) whereas PAX2 was expressed in 36 cases (95%). Both PAX8 and PAX2 were negative in the two cases of serous borderline tumour (0%). All the cases of mucinous neoplasms including borderline and mucinous carcinomas were negative for PAX8 (0%), however, a single case of mucinous carcinoma was positive for PAX2 (100%). Endometrioid carcinoma (0/1) expressed neither PAX8 nor PAX2. All the 13 metastatic cases were serous carcinomas which showed PAX8 immunepositivity in 12 cases. Six cases of metastatic disease were immunepositive for PAX2. *Discussion and conclusion:* Our study revealed that both PAX8 and PAX2 are sensitive markers for the detection of ovarian serous neoplasms. Thus, PAX2 and PAX8 are useful biomarkers in the diagnosis of ovarian epithelial neoplasm.

IAP002 Strumal carcinoid and struma ovarii: Two cases of ovarian monodermal teratomas

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Introduction: Struma ovarii is a rare ovarian teratoma comprising of thyroid tissue. Most of the tumours are benign and about 5% are malignant. In certain cases, thyroid tissue within the ovary is admixed with carcinoid, a condition referred to as strumal carcinoid. Strumal carcinoid is a rare tumour accounting for less than 0.1% of ovarian malignancies. It presents in fifth and sixth decades of life and has vague non-specific symptoms. *Case reports:* Case 1: A 39-year-old patient presented with abdominal distention for one month and a pelvic ultrasonography revealed a left solid-cystic adnexal mass. Microscopic examination of the ovarian cyst revealed multiple variably sized colloid-filled thyroid follicles with bland-looking follicular cells within normal ovarian tissue. Case 2: A 52-year-old post-menopausal woman complained of abdomen distention and weight loss for one month. Pelvic sonography revealed a well-defined right ovarian solid mass measuring 10×6×5.5cm. She underwent total abdominal hysterectomy and bilateral salpingo-oophorectomy with lymph node dissection. Microscopically, the right ovarian mass displayed tumour cells forming tubules, glands, and trabeculae juxtaposed with thyroid follicles. The cells were uniform with eosinophilic cytoplasm and centrally located nuclei with salt-and-pepper chromatin. Immunohistochemistry shows the tumour cells were positive for synaptophysin and chromogranin A. A diagnosis of strumal carcinoid was made. *Discussion:* Ovarian strumal tumours should be considered in middle-aged women with a pelvic mass. Diagnosis is established through histopathology and immunohistochemistry study. Surgery is the mainstay of treatment, adjunct with chemotherapy or radiation for advanced cases. Although recurrence and metastasis are rare but, long term follow-up is recommended for monitoring of such cases.

IAP003 Carcinoma ex sinonasal papilloma: An insight of the exceptional neoplasm.

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Introduction: Carcinoma ex sinonasal papilloma is an uncommon neoplasm arising typically from the inverted subtype of sinonasal papilloma and is most commonly associated with squamous cell carcinoma transformation. This case report highlights the potential

0.4. Occasional obliterative phlebitis was seen. The case was concluded as IgG4-RD. *Discussion:* IgG4-RD is a master of disguise. This case highlights the importance of considering IgG4-RD in the differential diagnosis of extra-axial or intracranial lesions with pachymeningeal enhancement. Accurate diagnosis is essential, as management differs significantly from that of other brain tumours, with corticosteroid therapy being the mainstay of treatment. Early recognition and intervention are critical in alleviating symptoms, preventing irreversible fibrotic damage, and reducing the risk of secondary amyloidosis.

IAP020 Laryngeal Spindle Cell Squamous Cell Carcinoma, A Diagnostically Challenging Tumour

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Introduction: Spindle cell squamous cell carcinoma (SCSCC) of the larynx is a rare and aggressive variant. Histologically, it is characterised by the presence of spindle shapes or pleomorphic epithelioid cell and typically associated with intraepithelial dysplasia and/or conventional SCC. *Case report:* A 73-year-old male presented with hoarseness of voice. CT neck and thorax showed a locally advanced laryngeal carcinoma. He underwent total laryngectomy, bilateral selective neck dissection and total thyroidectomy. Gross examination revealed a transglottic fungating tumour, measuring 80 × 30 × 25 mm. The tumour is extending beyond the thyroid cartilage into part of the anterior soft tissue and flap muscle, as well as the posterior pharyngeal wall. Microscopically, the majority of the tumour (approximately 95%) was composed of malignant spindle cells exhibiting marked nuclear atypia. A minor component (about 5%) showed features of conventional squamous cell carcinoma. Immunohistochemically, the spindle cell component was positive for vimentin and showed focal positivity for p63 and cytokeratin AE1/AE3. Diagnosis of squamous cell carcinoma, spindle cell type (95%) mixed with conventional type, with TNM staging of pT4a, pN0 was given. *Discussion:* It is crucial to distinguish this tumour from primary mucosal sarcomas and reactive spindle cell lesions. The diagnosis depends on the detection of a typical squamous cell carcinoma component and the immunopositivity of epithelial markers. In this case, even though the epithelial markers are only focally positive, the presence of a conventional squamous component supports the diagnosis. Careful correlation of histomorphology with immunohistochemical findings is essential to avoid misdiagnosis and to ensure appropriate clinical management.

IAP021 Concurrent Intraductal Papillary Mucinous Neoplasm and Serous Cystadenoma of Pancreas

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Introduction: Pancreatic cystic neoplasms encompass a heterogeneous group of lesions with varying biological behaviour and malignant potential. Among these, serous cystadenoma (SCA) is a benign, typically asymptomatic cystic lesion, whereas intraductal papillary mucinous neoplasm (IPMN) is recognised for its potential to undergo malignant transformation. The synchronous occurrence of both lesions within the same pancreas is exceedingly rare and presents significant diagnostic, prognostic, and therapeutic challenges. *Case Presentation:* A 76-year-old female presented with vague epigastric fullness and right-sided abdominal discomfort. Radiological evaluation revealed two distinct cystic lesions within the pancreas: a hypodense, septated cystic lesion at the pancreatic body, and a well-defined cystic lesion at the pancreatic tail demonstrating direct communication with the main pancreatic duct, radiologically suggestive of an IPMN. The patient subsequently underwent a distal pancreatectomy. Histopathological examination confirmed the diagnosis of a serous cystadenoma at the pancreatic body and a low-grade IPMN at the pancreatic tail, without evidence of high-grade dysplasia or invasive carcinoma. *Conclusion:* The concurrent occurrence of IPMN and serous cystadenoma is uncommon, with only a limited number of cases reported in the literature. This case highlights the importance of comprehensive preoperative evaluation and meticulous histopathological examination in patients with multiple pancreatic cystic lesions. Recognition of this dual pathology is crucial as management strategies differ due to the malignant potential associated with IPMN.

IAP022 Double Trouble: Primary Bilateral Ovarian Neuroendocrine Tumours in a Patient with Prior Renal Cell Carcinoma

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Introduction: Primary ovarian neuroendocrine tumours (NETs) are rare; bilateral involvement is exceptional. This poses a diagnostic challenge in distinguishing primary from metastatic disease, particularly in patients with a prior malignancy. We report a unique case of primary bilateral ovarian NET in a patient with previous clear cell renal cell carcinoma (ccRCC). Case Presentation: A 45-year-old woman with a history of left nephrectomy for ccRCC in 2018 currently presented with enlarging bilateral ovarian masses on surveillance imaging. Computed tomography showed multiloculated cystic masses without evidence of ccRCC recurrence. She underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. Results: Gross examination of both ovaries showed solid-cystic, tan-yellow tumours (Right: 10 cm; Left: 12 cm). Microscopically, both tumours showed uniform cells in tubular and trabecular patterns with round nuclei, "salt-and-pepper" chromatin, and eosinophilic cytoplasm. Mitoses were low (1/10 HPF) with no tumour necrosis. Immunohistochemistry showed positivity for neuroendocrine markers (CKAE1/AE3,

synaptophysin, and chromogranin A). Ki-67 proliferative index was 5%. Tumour cells were negative for renal, sex cord-stromal, germ cell, gastrointestinal, and hormonal markers; supporting a diagnosis of NET grade 2. Discussion: This case highlights an exceptionally rare presentation of primary bilateral ovarian NETs, with added complexity from a prior malignancy. It underscores the importance of integrating histopathology, immunohistochemistry, and clinical history to distinguish rare primary tumours from metastases. Accurate diagnosis is critical for optimal patient management and prognosis.

IAP023 Ameloblastic Carcinoma: Diagnostic Challenges in Two Cases

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Introduction: Ameloblastic carcinoma (AC) is a rare tumour of the jaw. While its aetiology is unknown, some ACs are thought to arise from longstanding untreated ameloblastoma (AM). Since ameloblastoma also resembles AC, salient morphological features are key in differentiating both tumours as they both require different intervention. We present two cases of ACs reported on tissue biopsy and fine needle aspiration cytology (FNAC) samples. Case report: Case 1: A 53-year-old man presented with 3-year history of increasing left jaw swelling. CT scan revealed a large heterogenous mandible mass associated with necrotic centre, bone destruction and adjacent structures' infiltration associated with lung nodules and enlarged mediastinal lymph nodes. Ultrasound guided biopsy was performed. Case 2: A 51-year-old Malay man presented with increasing bilateral jaw swellings for 5 years. FNAC was performed. Results: Case 1: Histopathology examination showed mainly AM features with sheets and cords of epithelial cells displaying peripheral basaloid palisading and reverse nuclear polarity. Deeper sections demonstrated moderate nuclear pleomorphism, abnormal mitoses and free-lying necrotic material. Case 2: FNAC revealed clusters of disorganised basaloid cells in palisades associated with pleomorphic hyperchromatic nuclei and prominent nucleoli. Discussion: These cases represent a rare jaw tumour and the challenges it poses when interpreting limited diagnostic material. It also illustrates the importance of multidisciplinary team discussions as well as additional tests in arriving to the best possible diagnosis.

IAP024 A Rare Case of Malignant Phyllodes Tumour with Myxoid Liposarcomatous Differentiation

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Introduction: Malignant phyllodes tumour (PT) is a rare fibroepithelial breast neoplasm, accounting for less than 1% of all breast tumours. Malignant transformation is defined by stromal overgrowth, marked nuclear pleomorphism, increased mitotic activity (≥10/10 HPFs), diffuse stromal cellularity, and infiltrative margins. The presence of malignant heterologous elements alone confirms malignancy. *Case report:* We report a malignant PT with myxoid liposarcomatous differentiation in a 70-year-old woman who presented with a rapidly enlarging, intermittently painful left breast mass over one year. CT scan revealed a large, lobulated, heterogeneously enhancing mass occupying the entire breast (10.5 × 12.5 × 12.6 cm). Core biopsy suggested a fibroepithelial lesion, favouring PT. A mastectomy was subsequently performed. Grossly, the tumour was firm, multilobulated, with a gelatinous cut surface. Histology confirmed a biphasic PT with extensive myxoid liposarcomatous differentiation, featuring spindle cells in a myxoid matrix with curvilinear vasculature and lipoblasts, including signet-ring forms. Mild to moderate nuclear pleomorphism and increased mitotic figures (14/10HPF), infiltrative edges and nodular "skipped" growth patterns were observed. The spindle cells are positive for vimentin, focal S100, SMA, CD34, and p16. CK AE1/AE3 and p63 were negative. *Discussion:* The diagnosis of malignant phyllodes tumour with prominent heterologous components can be challenging, often raising concern for primary breast sarcoma or metaplastic carcinoma. In this case, the presence of infiltrative borders, classical phyllodes architecture in areas, and heterologous myxoid liposarcomatous differentiation supports the diagnosis of malignant phyllodes tumour. Immunohistochemistry, along with careful histological assessment, is essential to differentiate this entity from other mimics.

IAP025 Adenoid Cystic Carcinoma in the External Auditory Canal: Rare Otologic Malignancy

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Introduction: Malignant tumours of the external auditory canal (EAC) are rare, with squamous cell carcinoma being the most common. Adenoid cystic carcinoma (ACC) in the EAC is exceptionally uncommon, primarily occurring in salivary glands of the head and neck. *Case report:* A 70-year-old Chinese gentleman presented with a one-year history of left otalgia, which is throbbing in nature and accompanied by minimal ear discharge. Clinical examination shows that the tympanic membrane is not seen and a smooth swelling involving the anterior, posterior, and floor of the EAC. CT and MRI findings identified a soft tissue lesion causing bony erosion and narrowing of the EAC lumen. A left temporal bone and tumour resection was performed. Grossly, the tumour appeared as an infiltrative, solid, greyish lesion. Histopathological analysis confirmed ACC with bone involvement and positive resection margins. *Discussion:* Primary tumours of the EAC account for less than 0.2% of head and neck cancers, with ACC being an exceedingly rare diagnosis. ACC follows a slow growing but relentless malignant course. Its precise origin in the EAC remains uncertain, possibly from ceruminous gland derivation, ectopic salivary tissue or extension from the parotid gland. Although this theory remains unproven. ACC has a challenging prognosis, with high rates of locoregional recurrence and most developed distant metastases commonly in the lungs. Surgical resection remains the primary treatment modality. While post-resection imaging in this