

International Academy of Pathology Malaysian Division (IAPMD) 10th Annual Scientific Meeting 2025, Breast & Gynaecology Pathology: Empowering Women's Health, From Cells to Cure, held on 1st – 2nd October 2025 at SunMed Convention Centre, Sunway Medical Centre, Selangor, Malaysia. Abstracts of plenary, talk, symposium and paper (oral and poster) presented are as follows:

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 immunopositivity in 12 cases. Six cases of metastatic disease were immunopositive 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

staining showed positivity for oestrogen and progesterone receptors and negativity for S100 and CD34, supporting the diagnosis of angiomatofibroma. *Discussion:* This case underscores the limitations of core needle biopsy in diagnosing heterogeneous mesenchymal tumours such as AMFB. Inconclusive biopsy findings necessitate a high index of suspicion and often warrant surgical excision for accurate diagnosis and appropriate treatment.

IAP043 Prevalence of HPV 16/18 Positivity and Cytological Findings in the Post-Vaccination Era: A Retrospective Study at SASMEC@IIUM

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Introduction: Malaysia's national HPV vaccination program was introduced over a decade ago to reduce cervical cancer rates. As vaccinated cohorts enter screening age, evaluating the local prevalence of HPV 16/18 is essential to assess vaccine impact and guide screening practices. Cytology remains central to cervical screening, but may not detect all high-risk infections. This study aims to determine the prevalence of HPV 16/18 among HPV-positive women at SASMEC@IIUM and examine their correlation with cytological findings. *Materials and Methods:* A retrospective cross-sectional review of medical records was conducted for 304 HPV-positive women screened between 2019 and 2024. Data extracted included age, HPV genotype, and Pap smear results. Cases positive for HPV 16 and/or 18 were categorised using the Bethesda System. *Results:* The median age was 35 years (range: 19-64). HPV 16 and/or 18 were detected in 51 cases (16.8%): 17 (5.6%) with HPV 16 alone, 19 (6.3%) with HPV 18 alone, and 15 (4.9%) with both. Among these, 26 (51%) had negative cytology, while 17 (33.3%) showed epithelial abnormalities, indicating genotype-cytology discordance. *Discussion and Conclusion:* HPV 16/18 remains detectable in the post-vaccination era, with over half of positive cases showing negative cytology. These findings support the incorporation of HPV genotyping into routine screening and highlight the need for continued local monitoring.

IAP044 Innovative Techniques in Renal Biopsy Diagnostics: Clinicopathological Insights and Aptamer-Based Advancements

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Introduction: Renal biopsies are essential for diagnosing kidney diseases, but immunofluorescence on frozen tissue (Immunofluorescence-Frozen, IF-F) has limitations. This study assesses clinicopathological features, compares immunofluorescence on paraffin-embedded tissue (IF-P) and IF-F and evaluates deoxyribonucleic acid (DNA) aptamers as novel bioreceptors for detecting Immunoglobulin G (IgG) and Complement 3 (C3) in renal biopsies. *Methods:* Data from 242 renal biopsies (2016–2023) at Hospital Pakar Universiti Sains Malaysia were analysed. Paraffin blocks were treated with pronase for Immunofluorescent-Paraffin (IF-P) staining. The performance of IF-P specificity, sensitivity, and predictive values was compared to IF-F. DNA aptamers targeting IgG and C3 were designed using in-silico models and tested on IF-P tissues. *Results:* Renal biopsies rose from 22 in 2016 to 48 in 2022, with a slight drop in 2023. The mean age was 21.2 years, female-to-male ratio (1.3:1), with 53.3% under 18. Most patients were Malay (95.5%), and nephrotic syndrome was the main indication (47.9%). Mean serum creatinine and 24-hour urine protein were 115.22 µmol/L and 4.32 g, respectively. Common diagnoses included Lupus Nephritis (31.0%), Focal Segmental Glomerulosclerosis (FSGS) (21.9%), and Minimal Change Disease (15.7%). IF-P showed high specificity (IgG 98.2%, C3 98.3%) and sensitivity (IgG 90.8%, C3 84.2%), comparable to IF-F. Nine single strand deoxyribonucleic acid (ssDNA) aptamers showed strong stability and affinity to IgG and C3c, with IgG-47H and C3c35C showing the highest specificity in aptahistochemistry. *Conclusion:* This study shows promising potential of DNA-Aptamers as novel diagnostic tool and pronase-treated IF-P as effective alternatives to IF-F, offering improved diagnostic accuracy and outcomes.

IAP045 BCL2-Negative Follicular Lymphoma: A Diagnostic Pitfall

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Introduction: Follicular lymphoma (FL) is characterised by t(14;18)(q32;q21) chromosomal translocation which typically resulted in BCL2 protein expression in the neoplastic cells. BCL2-negative FL is uncommon and can pose a diagnostic challenge. *Case report:* A 60-year-old lady presented with progressively enlarging anterior neck swelling for the past six months. It was associated with discomfort on changing body position and swallowing. There was no dyspnoea, voice hoarseness, prolonged fever or loss of weight. She denied hypo- or hyperthyroid symptoms. Examination revealed a diffuse, firm and non-tender thyroid swelling measuring 11 x 5 cm. Ultrasound showed cervical lymphadenopathy bilaterally. Fine needle aspiration of the thyroid showed atypical lymphoid cells, nevertheless the core biopsy was reported as reactive lymphoid hyperplasia. She underwent a total thyroidectomy and excision of bilateral central lymph nodes. *Results:* Histopathological examination of the thyroid and lymph nodes revealed almost total effacement by neoplastic follicles composed of a mixture of centroblasts and centrocytes which were positive to B cell