(IDH2 hotspot mutations and PI3K pathway mutations).² We present a case of tall cell carcinoma with reversed polarity in the breast of an 81-year-old woman. The lesion showed papillary morphology and columnar cells exhibiting reversed nuclear polarity. Immunohistochemistry showed the tumour cells were positive for CK5/6. They showed weak positivity for GATA3 and GCDFP and were negative for TTF-1. Stains for p63 and p40 showed an absence of myoepithelial cells around tumour nests. The core biopsy showed triple negative hormone receptor status. Further molecular testing was performed which showed a mutation in the PIK3CA gene. An activating mutation in the IDH2 gene was also detected. The combination of morphologic, immunohistochemical and molecular findings are diagnostic of tall cell carcinoma with reverse polarity. It can present a diagnostic challenge when encountered. IDH2 and PI3K mutation testing may provide more confidence with diagnosing these lesions and to help distinguish it from other breast neoplasms.

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TYPE AB THYMOMA WITH AN ATYPICAL TYPE A COMPONENT – A CASE REPORT

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Thymomas are rare tumours of the mediastinum, their cell of origin being thymic epithelial cells, with a variety of presentations and criteria for malignancy. It has always been challenging to classify them appropriately. Atypical type A thymoma has been recently added to the WHO classification (in 2015).¹ There are rare reports of atypical type A thymomas as well as AB thymomas with an atypical A component demonstrating cytologic atypia as well as foci of necrosis and increased mitoses.² We report a case of type AB thymoma with an atypical A component. Our case showed both type A and type B areas as well as an atypical type A component with areas of necrosis and increased mitoses. The case reports reported in the literature show a more aggressive course of atypical type A thymoma in comparison to type A or type AB.³ However, on extensive literature search there was a paucity of articles on atypical type A thymoma, their overall clinical course and prognosis. Further research is needed in this area.

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METASTATIC MEDIASTINAL ATYPICAL MENINGIOMA: A CASE REPORT

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Meningiomas are common neoplasms arising from the central nervous system meninges. Extracranial metastasis of meningiomas are rare and are usually found in less than 0.1–0.2% of cases, though isolated metastasis to the liver and lung have been reported. Because of its rarity and intriguing pathogenesis, we reported here a case of metastatic mediastinal atypical meningioma.

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A CASE OF STEROID RESPONSIVE NIVOLUMAB-INDUCED CHOLANGITIS

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Immune checkpoint inhibitors (ICIs) such as nivolumab are widely used agents in the treatment of a range of advanced malignancies given their demonstrated ability to achieve sustained clinical response and long-term survival in a significant subset of treated patients.¹ ICIs enhance the endogenous anti-tumour immune response and hence are associated with a distinct set of immunologically-mediated toxicities referred to as immune related adverse events (irAEs). ICI-related cholangitis is a rare irAE which currently lacks established diagnostic criteria or treatment guidelines.² Here we present a case of a 75-year-old female with non-small cell lung cancer treated with palliative nivolumab who subsequently developed nivolumab-induced small duct cholangitis which demonstrated an excellent response to corticosteroid therapy. We believe this is the first such reported Australian case. Given previous reports of poor corticosteroid response, more clinicopathological data is needed to characterise the potentially heterogeneous nature of ICI-cholangitis.³ Though a rare phenomenon, given the increasingly common use of these agents, it is an important reaction pattern of which pathologists and clinicians should be aware.

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A MIMIC OF INFLAMMATORY BOWEL DISEASE – A CASE REPORT OF MONOMORPHIC EPITHELIOTROPIC INTESTINAL T-CELL LYMPHOMA

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Monomorphic epitheliotropic intestinal T-cell lymphoma (MEITL) is a rare primary intestinal T-cell lymphoma. It is commonly seen in the Asian and Hispanic populations and is usually not associated with celiac disease, unlike type I enteropathy associated T-cell lymphoma.

It commonly occurs in the small intestine, and patients usually present with clinical features of obstruction or perforation. Patients usually have a late clinical presentation and have advanced stage disease at the time of diagnosis.

We present a case of a gentleman who had recurring abdominal pain with CT scans demonstrating thickened small bowel wall and biopsies showing chronic inflammation, features suggestive of inflammatory bowel disease. He was managed as having Crohn's disease without significant improvement. Further investigations revealed the diagnosis of MEITL.

A CASE REPORT ON FINE NEEDLE ASPIRATION OF MAMMARY ANALOG SECRETORY CARCINOMA IN THE PAROTID GLAND

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Mammary analog secretory carcinoma is a recently described salivary gland neoplasm defined by its t(12;15)(q13;q25) translocation that results in a ETV6-NTRK3 gene fusion. Fine needle aspiration of mammary analog secretory carcinoma poses a diagnostic challenge as it has overlapping features of other primary salivary gland neoplasms including acinic cell carcinoma and mucoepidermoid carcinoma. We report a case of a 65-year-old male who presented with a parotid lump. Fine needle aspiration was performed which showed a hypercellular smear containing abundant neoplastic epithelial cells with a background of proteinaceous material. The lesional cells had relatively uniform, intermediate size nuclei with pale, granular chromatin and some had small, discrete nucleoli. The cells had abundant delicate and vacuolated cytoplasm. The lesional cells were uniformly positive for S100, cytokeratin 7 and beta-catenin; they were negative for myoepithelial markers p63 and SMA. A diagnosis of mammary analogue secretory carcinoma was made

on cytology which was confirmed on histopathology and molecular studies performed on the resection specimen. This case highlights the importance of awareness of this entity, and describes the cytological clues and ancillary testing that would be helpful in identifying this lesion on fine needle aspiration.

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PERICARDIAL ROSAI-DORFMAN DISEASE: THE ROLE OF NEXT GENERATION SEQUENCING

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Rosai-Dorfman disease otherwise known as sinus histiocytosis with massive lymphadenopathy is an uncommon disease of histiocytic differentiation. The classification of histiocytic diseases including Rosai-Dorfman, Erdheim-Chester and Langerhans cell histiocytosis were previously believed to be reactive processes. Recent advances in molecular pathology including next generation sequencing has identified some somatic mutations within proportion of these lesions, giving evidence to at least a subset of these lesions being neoplastic. BRAFv600e mutations have been found in Erdheim-Chester and Langerhans cell histiocytosis, however it is rarely seen in Rosai-Dorfman disease. We report a case of a 72-year-old female who presented with shortness of breath and on imaging had an infiltrative pericardial mass that encased the heart. Histopathology showed predominately mixed inflammatory cells with focal areas of histiocytic aggregates. Focal emperipolesis was seen. Micro-organisms were not seen. The histiocytes were S100, CD68 positive; CD1a, langerin negative. Next generation sequencing was performed which showed a BRAFv600e mutation. This case report highlights the importance of next generation sequencing as an ancillary test for histiocytic lesions as it aids in diagnosis, adds to the understanding of aetiology, as well as allowing for targeted therapies to be a part of the treatment regime.

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MYOID DIFFERENTIATION IN DERMATOFIBROSARCOMA PROTUBERANS: A RARE PHENOMENON

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