proliferation and ganglion cells in the lamina propria. The third case is a 13-year-old male with undiagnosed PHTS, but a history of Chron's disease, trichilemmoma, and plantar wart like lesions. He underwent upper and lower endoscopy for Chron's disease assessment. Three polyps were removed from the descending colon. One was a juvenile polyp while the other two showed prominent smooth muscle proliferation and ganglion cells in the lamina propria.

Results (if a Case Study enter NA): NA

Conclusion: Histologically, all hamartomatous polyps had smooth muscle overgrowth, confirmed by SMA immunostain, which could easily be confused with prolapse type changes such as in solitary rectal ulcer syndrome. The key in distinguishing between the two is by recognizing ganglion cells within the lamina propria, confirmed by S100 immunostain. Additional clues include identifying mucosal ganglion cells, disarray of crypt architecture, and fibromuscular proliferation as well as considering the location and number of polyps. It is vital for pathologists to recognize the differential diagnosis of polyps with smooth muscle proliferation, especially in pediatric populations where a diagnosis of cancer predisposition syndromes may not be established. Furthermore, is important to discuss pursuing PTEN genetic testing with clinical colleagues as it has immense medical implications and requires a thorough future medical following.

Pulmonary

PD-L1 Expression in Cytological and Histological Lung Cancer Specimens

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Introduction/Objective: Several studies have explored the feasibility of measuring PD-L1 in cell block cytology and indicated cytological materials could be a reliable source for PD-L1 evaluation in non-small cell lung carcinoma patients. A few studies have investigated the compatibility and performance of PD-L1 clone SP263 testing between cytology and histology specimens. The study was pursued to evaluate PD-L1 expression in cell blocks from EBUS-TBNA compared to that in biopsied tissues from patients with lung carcinoma in our institution to evaluate a feasibility of PD-L1 clone SP263 in cell blocks and histology samples.

Methods/Case Report: A total of 57 specimens cytologically diagnosed lung carcinoma using endobronchial ultrasound guided transbronchial needle aspiraton (EBUS-TBNA) from Jan 1st, 2020, to Dec 31st, 2021 were screened for enrollment. Among them, 24 patients diagnosed with lung carcinoma using EBUS-TBNA and matched transbronchial biopsy (TBB) specimens were reviewed for study. After careful selection, 13 paired formalin-fixed tissues from lung carcinoma patients, including cell blocks and matched histology samples, were included. PD-L1 expression was assessed using the SP263 assay, and the tumor proportion score (TPS) was evaluated. PD-L1 expression was finally divided into three categories according to the TPS: < 1% (negative), 1–49% (low expression) and ≥ 50% (high expression).

Results (if a Case Study enter NA): Of the 13 matched pairs, 12 (92.3%) showed concordant PD-L1 expression. On cytology, 3 cases were positive (2 high expressors and 1 low- expressors) of which 2 were concordant and 1 discordant with matched histology specimens. Ten cytology samples were negative for PD-L1 expression, and they were concordant to histology samples. The correlation coefficient for TPS was 0.75 considered as having good value. Conclusion: With an overall concordance rate of 92.3% between cytology and histology specimen, this study demonstrates the feasibility of PD-L1 IHC with SP263 clone on limited quality and quantity of cytology samples from lung carcinoma in our institute. It is required for further evaluation with additional specimens to conclude that the usefulness of cytology cell blocks for PD-L1 expression analysis.

Diffuse Pulmonary Meningotheliomatosis: A Case Report

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Introduction/Objective: Diffuse pulmonary meningotheliomatosis (DPM) is a pulmonary disease characterized by the presence of widespread bilateral minute pulmonary meningothelial-like nodules (MPMNs). It is exceedingly rare and predominantly seen in females. The nodules are typically asymptomatic and detected incidentally on imaging.

Methods/Case Report: We present a case of a 57-year-old woman with a history of chronic cough and CT imaging findings of bilateral multiple ground-glass nodules. Wedge resections from the right upper and right lower lobes were obtained, which revealed gross changes suggestive of interstitial lung disease. Histologic evaluation of the wedges showed similar morphology, consisting of discrete areas with variable interstitial expansion of the stroma with ovoid/spindle cells, collagen, elastosis,

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and mild chronic inflammatory cells, in a somewhat perivascular pattern. Some areas were also cystic. This appeared in a background of emphysematous change and focal foreign body giant cell reaction to non-polarizable material. Immunohistochemical stains were diffusely positive for vimentin, EMA , and PR, and CD163 highlighted increased cells that were S100 and CD1a negative. Additionally, the ovoid/spindle cells were negative for desmin, SMM, HMB-45, HHV8, pan-CK, chromogranin, and multiplex SOX10-MART1.
Results (if a Case Study enter NA): NA
Conclusion: Diffuse pulmonary meningotheliomatosis is a rare entity that requires sufficient histological evaluation to identify the ovoid/spindle cell component histologically and immunohistochemically. This disease should be considered in the differential for cases of diffuse interstitial pulmonary infiltrates. Few cases have been reported in the literature, requiring further research to understand the mechanisms of this disease and its clinical significance.

Langerhans' Cell Histiocytosis Masquerading as Metastatic Melanoma on Frozen Section

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Introduction/Objective: Langerhans' cell histiocytosis (LCH) involving the lungs usually presents as multiple interstitial, bilateral, peribronchiolar pulmonary nodules. As lungs are a common site of metastatic involvement LHC can masquerade as a metastatic lesion. The distinction can be challenging, especially on a frozen section.
Methods/Case Report: We present a case of a 35-year-old male with history of metastatic melanoma who presented with pulmonary nodules and underwent lung wedge resection. Frozen section was requested at the time of surgery. Grossly there was a 2.8 cm tan-grey irregular lesion abutting the pleura. Frozen section of a representative piece showed a discohesive lesion composed of large cells with prominent nuclei resembling melanocytes. The eosinophilic infiltrate in the frozen slide was extremely scant, and presence of anthracotic macrophages resembled the melanin pigment frequently seen with melanoma. CT imaging prior to the surgery had raised the differential of LCH and metastatic disease. The frozen section was favored to be negative for carcinoma and metastatic melanoma and final diagnosis was deferred to permanent sections. Permanent tissue sections showed classic features of LCH and positivity for CD1a confirming the diagnosis.
Results (if a Case Study enter NA): NA
Conclusion: This case emphasizes the importance of multidisciplinary approach and knowledge of imaging impression during a frozen section.

Lady Windermere Syndrome: Historical Perspective and Report of a Rare Case

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Introduction/Objective: Lady Windermere syndrome refers to Mycobacterium avium complex (MAC) pulmonary disease with an isolated lingular or middle lobe pattern of involvement. This is thought to be due to habitual suppression of the cough voluntarily. Typical demographics are that of elderly female patient. Although the etiology remains unclear high prevalence of pectus excavatum, scoliosis and mitral valve prolapse has also been noted in these patients. The purpose of this report this to describe a case of this syndrome.
Methods/Case Report: A 64-year-old female with a history of breast carcinoma status post bilateral mastectomies, and thyroid papillary microcarcinoma, status post thyroidectomy, presented with hemoptysis. Clinically and radiological findings were consistent with pneumonia which improved but did not completely resolve following antibiotic treatment. Computerized tomography (CT) revealed progressive infiltrates and bronchoscopy cultures grew Mycobacterium avium complex (MAC). Repeat antibiotic therapy resulted in only marginal improvement. Repeat CT showed diffuse bronchiectatic changes with scattered nodularity and tree-in-bud opacities, with majority of involvement in the right middle lobe and lingula. Multiple interventions were employed to ameliorate the patient's condition including a positive expiratory pressure device, gastroesophageal reflux disease (GERD) precautions and combinations of 2 drug therapies without significant improvement in her condition. It was ultimately decided that she may benefit from a right middle lobectomy. Histologic sections from the lobectomy specimen showed necrotizing and non-necrotizing granulomatous inflammation and bronchiolectasis. Rare acid-fast microorganisms were identified on AFB special satin. Lady Windermere syndrome was suggested in the diagnostic comment after expert consultation. Patient's symptoms improved after surgery and additional samples show no growth of MAC.
Results (if a Case Study enter NA): NA
Conclusion: Although rendering a definite diagnosis is challenging in such cases, the constellation of clinical, radiologic, and histologic finding can be used to raise the possibility of Lady Windermere syndrome.

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