and scattered ganglion cells. The immunohistochemical staining positive for synaptophysin in epithelioid cells, S100 in spindled schwann cells and CK in epithelioid cells and Ganglion cells. Based on the microscopic findings, a diagnosis of Gangliocytic Paraganglioma, GP arising in Pancreas was made.

Results (if a Case Study enter NA): NA

Conclusion: Pancreatic GP, are often misdiagnosed as Pancreatic Neuro endocrine tumors, Grade1. The accurate differentiation and precise diagnosis is crucial for appropriate clinical management. WHO classification of 2010, classifies gangliocytic paragangliomas as benign. Duodenal GP has a benign behavior with lymph node metastasis in only 5-7% cases, and no evidence of distant metastasis. In comparison, Pancreatic GP show an more aggressive behavior with lymph node metastasis observed in 2/6 cases and one case with sternal bone metastasis, emphasizing the importance of the primary location of origin of GP as prognostic factor. Our understanding is limited due to the scarcity of literature; more published data shall be instrumental in further explaining the clinical behavior of this rare entity.

Pediatrics

Massive Perivillous Fibrin Deposition-A Cause of Recurrent Fetal Demise: A Case Report

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Introduction/Objective: Massive perivillous fibrin deposition (MPFD) and maternal floor infarction (MFI) are rare placental lesions reported in less than 1% of all pregnancies and have a significant risk of recurrence ranging from 12% to 78%. MPFD/MFI is associated with high rates of adverse perinatal outcomes including preterm delivery, severe intrauterine growth restriction, spontaneous abortion, cystic renal cell dysplasia, fetal metabolic disease with reported mutations in the LCHAD (long-chain 3-hydroxy acyl-CoA-dehydrogenase) gene, neonatal death and long- term neurological impairment.

Methods/Case Report: We report a case of MFPD in a 28-year-old female gravida 3 para 1 with one uncomplicated pregnancy and one therapeutic abortion. The current pregnancy was complicated by abruption resulting in intrauterine fetal demise at 32 weeks of gestation. The placenta was examined. Grossly, the placenta weighed 260 grams (small placenta for the dates) with an eccentrically inserted three vessel umbilical cord and a diffuse, firm pale grey cut surface with focal cystic areas. The histological examination revealed MPFD characterized by extensive transmural perivillous fibrinoid material with encasement of almost entire chorionic villi (transmural type). The villi were viable but fibrotic with focal syncytiotrophoblastic necrosis and focal mild chronic inflammation. The etiology of MPFD is not well understood, but risk factors that have been reported include maternal thrombophilia, coagulopathies, and autoimmune diseases. Given the clinical associations, MFI/MPFD should be reported promptly to the obstetrician and pediatrician. As per the current literature, a combination of thrombolytic therapy (aspirin and heparin), intravenous immunoglobulin and a statin (pravastatin) helps to correct angiogenic/antiangiogenic imbalance which has been thought to be associated with recurrent MFI/MPFD.

Results (if a Case Study enter NA): N/A

Conclusion: In summary, we present this rare recurring entity of MPFD to emphasize the awareness of this condition and the importance of placental examination in all abortions and fetal abnormalities/demise.

Chronic Histiocytic Intervillositis: A Placental Histopathologic Feature in Vertical Transmission of Maternal Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)

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Introduction/Objective: Vertical transmission of severe acute respiratory syndrome associated with coronavirus-2 (SARS-CoV-2) infection has been reported as a rare occurrence. The purpose of this study is to identify any specific placental histopathologic abnormalities associated with SARS-CoV-2 infection, compare differences between mothers with symptomatic and asymptomatic coronavirus disease 2019 (COVID-19), and determine the frequency of vertical transmission.

Methods/Case Report: Placentas from mothers diagnosed with COVID-19 during pregnancy and delivered at Stony Brook University Hospital were identified. A control group of mothers with a negative COVID-19 test was selected from the same period. The frequency of histopathologic characteristics defined by the Amsterdam Placental Workshop Group Consensus was compared using chi-square tests between the following cohorts: COVID-19 positive mothers against COVID-19 negative mothers and symptomatic COVID-19 mothers against asymptomatic COVID-19 positive mothers.

Results (if a Case Study enter NA): A retrospective study reviewed 23 placentas from mothers with COVID-19 for features of maternal vascular malperfusion, fetal vascular malperfusion, and inflammatory changes. 11 mothers displayed symptomatic COVID-19, and 12 mothers were asymptomatic. One neonate tested positive for SARS-CoV-2. No significant differences were identified in the frequency of the examined placental histopathologic

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characteristics between COVID-19 positive and negative mothers. The degree of COVID-19 severity did not significantly impact the frequency of examined histopathologic features. Interestingly, in the case with vertical transmission, the placenta demonstrated the only finding of chronic histiocytic intervillositis (CHI) with associated trophoblast necrosis.
Conclusion: Comparing across groups based on COVID-19 status, this study found no specific placental histopathologic features associated with maternal SARS-CoV-2 infection, regardless of symptom severity. However, in one case of vertical transmission, CHI was a unique histopathologic feature. These findings are consistent with the current literature. Further large-scale investigations are needed to establish additional patterns of specific placental histopathology, incidence and contributing factors of vertical transmission of COVID-19, and the impact of CHI in future pregnancies of affected women.

A case report of an uncommon presentation of Nephroblastoma (Wilms tumor): in an older child with polycythemia and elevated erythropoietin

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Introduction/Objective: Wilmstumor(nephroblastoma), is a neoplasm that has a prevalence of 1 per 10,000 before the age of fifteen, with 50% occurring before age 3. WT1 (11p13) gene, a zinc finger transcription factor, is expressed in early urogenital system development and mutations here represent one of the primary pathways to the development of Wilms tumor. Although mouse model studies have shown that WT1 may be a transcriptional activator of erythropoietin (EPO) gene, increases in serum erythropoietin are rarely seen in patients with Wilms tumor. Concurrent polycythemia is a further rarity with only 11 such reports in literature. This is intriguing since WT1 mutations represent the most common mutation pathway in Wilms Tumor. Interestingly, other tumor types associated with elevated serum EPO and polycythemia (e.g. renal cell carcinoma and metanephric adenoma) are thought to do so through the generation of hypoxia inducible factor, and induction of VEGF.
Methods/Case Report: Here we present a case of Wilms tumor in a 7-year-old female who was establishing care after moving to Vermont. Physical examination showed possible splenomegaly ultimately discovered to be a large LUQ abdominal mass with a concurrent discovery of polycythemia. Subsequent serum EPO was 308 (Ref: 2.6-18.5 mIU/mL).). The mass was surgically removed with resolution of polycythemia. Histological evaluation showed a triphasic, blastema predominant Wilms tumor with favorable histology. Heterologous, vascular differentiation was seen in the stroma, positive for CD34 and CD31, and negative for D2-40.
Results (if a Case Study enter NA): NA
Conclusion: Based on these findings, this phenomenon may be related to increased VEGF expression resulting in this patient's increased serum EPO and polycythemia, and heterologous vascular differentiation within the tumor stroma. This is the first report of histology in a case of Wilms tumor associated with high serum EPO and polycythemia and may indicate an alternative pathway for the generation of EPO in Wilms tumor.

Phlebotomy

Applying Best Practice to Converting Blood Collection Tube Suppliers: Overcoming Laboratory Supply Shortages

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Introduction/Objective: Changing blood tube suppliers is a complex process that requires systematic validation. It can serve to expand a laboratory's options during a supply shortage, and can lead to cost savings. Just prior to the pandemic, our laboratory underwent a large-scale conversion of blood tube suppliers after successful validation of serum, plasma, and whole blood tubes for blood bank, chemistry, immunology, hematology, coagulation, molecular diagnostics, and flow cytometry.
Methods/Case Report: First, we designed a patient consent form for collecting extra blood samples. Per CLSI standards, validation of blood tubes is needed for each testing methodology but not for each analyte. Hence, we selected high-impact assays to represent each testing methodology used by our instrument platforms. We designed comparison studies to test the new blood tubes for result accuracy, precision and specimen stability that covered an assay's reportable range. Allowable error limits were set based on Westgard and CAP guidelines. Spiked specimens were used when positive patient samples were not feasible. We also took the opportunity to optimize the blood tube sizes, e.g., converting the lavender-top tubes from 2 ml (vendor A) to 3 ml (vendor B). We then confirmed with our reference labs the acceptability of the new vendor's products, and administered an electronic survey to solicit staff feedback. Finally, we coordinated supply chain, formulary changes and test catalog updates.
Results (if a Case Study enter NA): Data analyses showed 100% acceptable performance of the new supplier's blood tubes. The survey showed that our phlebotomists

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