Unique case of a pancreatic tumor

An 11-year-old male presented to the emergency department with abdominal pain, nausea and vomiting after blunt abdominal trauma. He exhibited left sided abdominal tenderness on examination. Labs revealed WBC 18 x 10^9/L, Hgb 11.9 g/dL, Amylase 63 U/L, Lipase 43 U/L with normal transaminases. Ultrasound of the liver revealed a large retroperitoneal mass causing compression of the spleen and pancreas with normal doppler findings of portal and hepatic veins. A CT scan with contrast showed a non-enhancing cystic lesion at the body/tail of the pancreas measuring 7.2x7.7x7.3cm with nodular peripheral capsular enhancement suggestive of internal hemorrhage. The presence of free fluid suggested rupture of the lesion. Further, there was evidence of venous collaterals and spleno-mesenteric shunt, supporting a long-standing process. Pancreatic malignancies are known to induce pro-thrombotic and hypercoagulable states therefore biopsy of the pancreatic lesion became the logical next step in this patient’s plan of care An endoscopic ultrasound-guided biopsy was performed, revealing a solid pseudopapillary tumor of the pancreas, a neoplasm with an indolent course, low malignant potential, and favorable prognosis, albeit rare in children.

Solid pseudopapillary neoplasms are of special interest because they occur predominantly in females (90 percent) and at a younger age (mean age in the 20’s) than other pancreatic neoplasms (except pancreatoblastoma) with the most common presenting symptom being abdominal pain. Many cases are discovered incidentally. Given our patient’s history of trauma to the area and the chronicity of the tumor findings it is likely that this sequence of events led to the lesion’s discovery.

The patient subsequently underwent distal pancreatectomy recently and is pending follow up.
Figure 1. Viable tumor. Pancreatic solid pseudo papillary neoplasm with extensive necrosis.

Figure 2. Immunohistochemical stains reveal tumor cells are positive for CD10.

- Negative for chromogranin and B-catenin and Cyclin D1 show nuclear staining indicating abnormal expression.
- Also negative for trypsin, chymotrypsin, and CEL.

Figure 3. CT Abdomen/Pelvis 7.2 cm x 7.7 cm mass coronal view

Figure 4. CT Abdomen/Pelvis 7.2 cm x 7.7 cm x 7.3 cm mass axial view