SAME ORGAN, SAME DIAGNOSIS, THREE DIFFERENT SURGERIES

Canan Ceran[1] , Abdysamat Uulu[1] , Ali İhsan Anadolulu[2]

[1]University of Health Sciences, Hamidiye International Faculty of Medicine, Department of Pediatric Surgery
[2] University of Health Sciences, Kartal Dr. Lütfi Kırdar City Hospital, Department of Pediatric Surgery

Objective:

Pediatric pancreatic tumors are exceedingly rare and are typically benign. Among them, solid pseudopapillary neoplasm (SPN) is a rare low-grade malignant pancreatic tumor, most commonly affecting adolescent and young adult females. Surgical resection is the primary treatment and generally carries an excellent prognosis, yet the optimal operative approach depends on tumor location and size. Due to their rarity and variable localization, optimal surgical strategies remain a matter of discussion. Here, we present three adolescent patients with SPN treated different surgical techniques, highlighting individualized operative planning and postoperative outcomes.

Table 1: Summery of the patients

Case	Age/sex	Tm Location	Presentation	Tm size	Operation	Pathological Diagnosis	Complication	Follow-up
1	17/ F	Tail	Pain, vomiting	6 cm	Distal pancreatectomy + Splenectomy	SNP	Pancreatic fistula, spontaneously resolved	3 years
2	15/ F	Head	Pain, vomiting, weight loss	6 cm	Whipple Procedure	SNP	None	3 years
3	15/ F	Uncinate Process	Pain, vomiting	4 cm	Tm Enucleation	SNP	None	3 years

Case 1

A 17-year-old female presented with abdominal pain, nausea, and vomiting. CT imaging revealed a 6-cm solid mass in the pancreatic tail. The patient underwent distal pancreatectomy with splenectomy. Postoperatively, during the first month, she developed clear serous drainage from the wound, which persisted for approximately 15 days and resolved spontaneously without intervention. Final pathology:Pathologic examination revealed Solid pseudopapillary neoplasm (SPN). The patient remains well on follow-up.

Case 2

A 15-year-old female with a history of chronic gastroesophageal reflux and long-term gaviscon use presented with vomiting, anorexia, and weight loss over two months. Ultrasound and further imaging identified a 5-cm mass in the pancreatic head. She underwent pancreaticoduodenectomy (Whipple procedure). The postoperative course was uneventful. Final pathology: Solid tumor consistent with SPN. The patient remains stable on follow-up.

Case 3

A 15-year-old female presented with abdominal pain. Imaging identified a 1.2-cm well-defined solid lesion in the pancreas. She underwent enucleation, and a 3.7-cm mass was removed. Finally diagnosed Solid pseudopapillary neoplasm. No postoperative complications occurred.

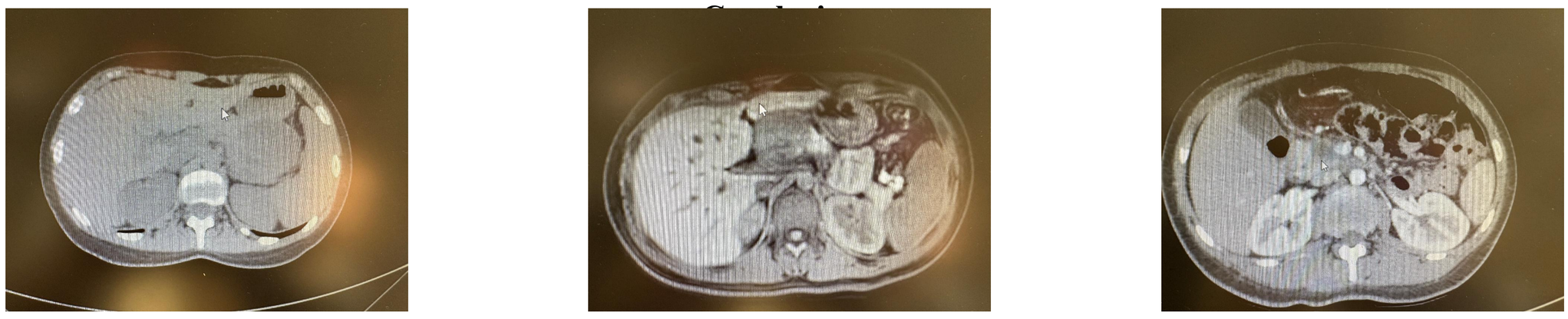

Figure: MR images of the tumors
A: Case 1 Tumor located at tail of pancreas , B: Case 2, Tumor located at the head of pancreas. C. Case 3, tumor located at the uncinate process

Since SPN is characterized by slow growth and excellent surgical prognosis, surgical resection is the cornerstone of treatment in pediatric patients. Tailored surgical approaches based on tumor location can provide excellent outcomes with minimal morbidity. The surgical approach must balance complete oncologic resection with preservation of pancreatic endocrine and exocrine function. Distal pancreatectomy remains standard for tail lesions; splenectomy may be necessary when splenic vessels are involved. Pancreatoduodenectomy is indicated for head lesions but is uncommon in children and requires experienced hepatopancreatobiliary teams. One of our patient had such lesion. Enucleation is a valuable parenchymal-sparing option for small lesions not adjacent to the main pancreatic duct. Actually it is not preferred method due to relapse concern. Our patient is dissease free for tree years postoperatively. Pediatric pancreatic SPN presents with variable localization and allows for different surgical strategies. Tumor size, location, and ductal involvement guide operative planning. Long-term outcomes are favorable with complete resection. Despite their rarity, awareness of SNP and appropriate surgical planning are essential for optimal pediatric pancreatic tumor management.