



PEDIATRIC SURGERY Update 8

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Frey Procedure

Chronic pancreatitis, a disease process more commonly found in adults than children, generally follows a progressive course of both pancreatic exocrine (steatorrhea) and endocrine (diabetes) insufficiency. Chronic pancreatitis in children is commonly unresponsive to medical therapy and may result in addiction to pain medication, dietary restrictions, absence from school, and restriction in the life of the child. Two procedures, namely Puestow (longitudinal pancreaticojejunostomy) and Duval (distal pancreatectomy with caudal pancreaticojejunostomy), has varying success depending mostly if the head of the pancreas is adequately decompressed or not. The Frey operation is indicated on patients with chronic pancreatitis who have "head dominant" disease. The Frey procedure consists of an anterior resection of the head of the pancreas preserving the duodenum along with a longitudinal pancreaticojejunostomy in order to improve decompression of the head of the gland. Frey procedure has proved to provide symptomatic relief and improvement in quality of life in children and adults. Frey procedure is considered as the standard procedure in patients with pancreatic head complications and ductal dilatation associated with chronic pancreatitis. Postoperative complications after Frey procedure are usually septic in nature and likely to occur more often in patients in whom endoscopic pancreatic stenting has been performed before surgical intervention.

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MRCP in Pancreatic Trauma

Magnetic resonance cholangiopancreatography (MRCP) is a diagnostic method that uses three-dimensional data sets for projection images, as well as arbitrary cross-sectional images, of the pancreatic and biliary ducts. MRCP is simple, comfortable, and requires no contrast media or radiation. Secretin administration improves ductal visualization, particularly of nondilated ducts. MRCP may be the diagnostic method of choice when ERCP is contraindicated or fails. Pancreatic injury has a high morbidity and mortality. The integrity of the main pancreatic duct is the most important determinant of prognosis. In the setting of blunt abdominal pancreatic trauma MRCP has a role in assessing pancreatic ductal integrity along with specific complications such as pseudocyst and posttraumatic strictures. Suspicion of ductal injury in MRCP determines the need for subsequent endoscopic retrograde cholangiopancreatogram (ERCP). In this era of conservative management of pancreatic injury in children, ERCP is considered a golden standard for identifying ductal injury offering the possibility of placing a ductal stent as primary treatment. Transpapillary drainage is especially effective in patients who have partial pancreatic duct disruption that can be bridged and is used to treat post-traumatic pancreatic pseudocysts.

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Pulmonary Blastoma

Pulmonary blastoma (PB) is a very rare type of embryonal malignant lung tumor believe to arise from the primitive interstitial mesenchyme of the lung. Other names coined to this tumor include pulmonary sarcoma, embryonal sarcoma, pulmonary rhabdomyosarcoma, embryonal rhabdomyosarcoma, and malignant mesenchymoma. Most cases present before the age of six years. Three pathologic types are recognized based on their morphologic appearance: Type I is a cystic lesion that is not distinguishable from other cystic lesions of the lungs. Type II is a cystic and solid mass, which may be evident radiologically; and Type III is a solid high-grade sarcoma. It is believed pulmonary blastomas can arise from a preexisting cystic lung disease such as congenital

adenomatoid malformation, pulmonary sequestration, bronchogenic cysts and pneumatocele. CT scan is utilized for diagnosis. A new solid component in an old cystic lesion of the lung arise suspicious that we are dealing with PB and a mandatory resection is warranted. Total tumor removal (lobectomy) offers the only chance of a good long-term outcome. Adjuvant chemotherapy is reserved for metastatic or residual disease.

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