



PEDIATRIC SURGERY UPDATE ©

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Choledochal Cyst

Choledochal cyst is a rare dilatation of the common bile duct, prevalent in oriental patients (Japan). More than 60% of patients are less than 10 years old. The etiology is related to an abnormal pancreatic-biliary junction (common channel theory) causing reflux of pancreatic enzymes into the common bile duct (trypsin and amylase). Symptoms are: abdominal pain, obstructive jaundice, a palpable abdominal mass, cholangitis, and pancreatitis. Infants develop jaundice more frequently, causing diagnostic problems with Biliary Atresia. Older children may show abdominal pain and mass. Jaundice is less severe and intermittent. Diagnosis is confirmed with Ultrasound and corroborated with a HIDA (or DISIDA) Scan. Choledochal cysts are classified depending on morphology and localization. Management is surgical and consist of cyst excision and roux-en-Y hepatico-jejunostomy reconstruction. Cyst retention penalties paid are: recurrent cholangitis, stone formation, pancreatitis, biliary cirrhosis, and malignancy. Long-term follow-up after surgery is advised.

Testicular Teratoma

Testicular neoplasm in children is rare. Yolk sac tumors are the most frequent one followed by teratomas that are usually benign tumors of non-germinal origin. Testicular teratomas (TT) present during infancy as unilateral testicular masses. Due to the characteristic at palpation and its eventual transillumination they can be confused with hydroceles. TT display mature, immature or malignant histopathological characteristics. Most are mature (cystic variety) with survival above 95%. Scrotal sonography constitutes the main diagnostic investigation: findings most commonly reveal a predominantly cystic lesion with echogenic component along its wall. Other times a complex mass occupying most of the testes with areas of calcification and cyst formation. Preop diagnosis is possible if characteristic features are recognized. Orchiectomy is adequate therapy for mature and immature testicular teratomas. Although transcrotal orchiectomy is not an appropriate surgical procedure and testicular biopsy is detrimental to prognosis in most testicular tumors, sparing enucleation (tumorectomy) based on their benign

nature (proven by instant frozen section) and absent intratubular germ cell neoplastic characteristics can be performed in some well delineated and superficial tumors. Malignant tumors should be managed by orchiectomy, high spermatic cord ligation, multiagent chemotx, and at times radiotx. TT tumor markers are: alpha fetoprotein (AFP) and human chorionic gonadotropin (HCG). Postop rise in AFP levels is a good indicator of malignant recurrence.

Splenoptosis

Splenoptosis (Wandering spleen) is a rare congenital fusion anomaly of the dorsal mesogastrium of the spleen that results in failure and laxity of its normal attachment to the diaphragm, retroperitoneum and colon. Relatively more common in children than adults, and females outnumber males. The child presents with an asymptomatic mass (splenomegaly), mass and subacute gastrointestinal complaints or with acute abdominal symptoms. These are the result of torsion of the pedicle, ischemia and splenic sequestration. 50% of spleens are lost to acute ischemia from torsion. Other complications are: pancreatitis, hypersplenism and cyst formation. Lab tests are nonspecific, but may occasionally reveal evidence of hypersplenism or functional asplenia. Diagnosis needs a high index of suspicion, and is achieved with: Ultrasound, CT, and Scintigram. Management consists of splenectomy for frank splenic infarct, or splenopexy for viable organs. Splenopexy is achieved by creating an extraperitoneal pocket or wrapping the spleen in absorbable mesh and anchoring to the retroperitoneum (splenic nood).

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