



PEDIATRIC SURGERY *Update* ©

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Forme Fruste Choledochal Cyst

In 1985, a new variant of choledochal cyst known as forme fruste was described in the pediatric literature. Forme fruste choledochal cyst (FFCC) is characterized by minimal dilatation of the extrahepatic bile duct which does not grow with time. The normal diameter of the common bile duct in children ranges between two and 6 mm. FFCC is associated with a diameter above six mm and below 10 mm. Most patients with FFCC have a long common channel, in which the common bile duct-pancreatic duct junction is away from the duodenal papilla, with partial obstruction of the terminal common bile duct. FFCC is associated with fever, jaundice, abdominal pain, recurrent pancreatitis and altered liver function tests. Histologically FFCC demonstrates thickened fibrous connective tissue, absent muscular layer with flattened, ulcerated and dysplastic mucosa. Diagnosis is established with ultrasound. ERCP or better yet MRCP can help delineate the anatomy and presence of a long common pancreaticobiliary channel in FFCC. Management consists of cyst excision and Roux-en-y hepaticojejunostomy. Due to the small size the anastomosis is technically difficult and should be performed carefully to avoid stricture and postoperative cholangitis. To maintain ductal anastomosis patency it is imperative that diseased ductal tissue not be incorporated in the anastomosis, the circumstance most likely responsible for the high incidence of anastomotic stricture in choledochal cyst past drainage operations.

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Gallbladder Polyps

A polypoid lesion identified in the gallbladder of a child is a very rare event. It represents an elevated lesion of the mucosal surface of the gallbladder which in most instances causes parental concern. Fortunately, most polypoid lesions identified in gallbladders are benign (90%). Histologically they are either adenomatous, hyperplastic, gastric heterotopia

or cholesterol polyps. The prevalence of such polyps is greater among males and obese children. Ultrasonography is the image method of choice in diagnosing gallbladder polyps in children and adults. They are seen as pedunculated or sessile echogenic lesions attached to the gallbladder wall protruding toward the lumen and fixed in changed of posture. Gallbladder polyps can be associated with acalculous cholecystitis. Lesions smaller than 10 mm do not progress to malignancy or development of stones, and none produces symptoms or complications of biliary disease. Surgical management of gallbladder polyps is indicated when the size of the polypoid lesion is above 10 mm in diameter, when associated with gallstones and when the child has consistent biliary symptoms. Treatment consists of laparoscopic cholecystectomy. Asymptomatic small polyps (< 10 mm) should be maintained under ultrasonographic surveillance.

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Gastrocutaneous Fistula

Gastrocutaneous fistula (GCF) is most commonly identified after removing long standing gastrostomy tubes in children. Other times is the result of gastrojejunal tubes and Crohn's disease. After removing a temporary gastrostomy tube most stomas close between three and six weeks after removal. Persistence of stomach leakage through the gastrostoma is a nuisance, erodes the surrounding skin and causes nutritional depletion. GCF does not close spontaneously when the stoma has been used for a long period of time, when there is distal obstruction (delayed gastric emptying), foreign body reaction (silk), epithelization of the tract (multiple granulomas formation), or associated chronic granulomatous disease (Crohn). Silk suture should be avoided when constructing surgical gastrostomies. When the tube is in place for more than nine months before removal the incidence of GCF can be as high as 45%. Initial non-surgical therapy should include H2-antagonist therapy and silver nitrate cauterization. If this does not work permanent management of GCF consists of surgical closure.

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