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Infantile Cholelithiasis

The finding of gallstones in neonates and infants is no longer rare. With the widespread use of abdominal sonography in a growing population of prematures TPN-fed survivals more cases of cholelithiasis in infants are reported. Stone formation increases with the duration of TPN. Other lithogenic factors are prolonged fasting, ileal resection, cystic fibrosis, polycythemia, multiple blood transfusions and inflammatory bowel disease. Approximately 80% of gallstones in children are not due to hemolytic disease. Clinically, the symptomatic infant with gallstone can develop colicky abdominal pain, postprandial nausea/vomiting, fatty-food intolerance and failure to thrive. Severe complications are seen in almost one-third of the infants with gallstones including jaundice by common bile duct obstruction, pancreatitis and perforation with bile peritonitis. Surgery is the treatment of choice for infants presenting with symptomatic cholelithiasis. Resolution of gallstones is seen in most asymptomatic infants between six months and one year of oral intake justifying a period of observation. Ursodeoxycholic acid is not effective in the treatment of pigmented stones. Laparoscopic cholecystectomy is recommended for the asymptomatic child younger than three years of age when echogenic shadows have been present for at least 12 months following resumption of oral feedings or when the gallstones are radiopaque (calcified).

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Chronic Pancreatitis

Chronic pancreatitis is an unusual condition seen in children. In contrast to adults, chronic pancreatitis have significant lifelong morbidity. Most common etiology of chronic pancreatitis in children consists of trauma, cystic fibrosis, hyperparathyroidism, hyperlipidemia, aminoaciduria, hereditary, congenital ductal anomalies and choledochal

cyst. Main symptoms are recurrent abdominal (epigastric) pain associated with nausea and vomiting. A transient elevation of amylase and lipase is associated with the pain. Once the diagnosis of chronic pancreatitis is suspected, the anatomy of the pancreatic duct should be defined using ERCP or MRCP (less invasive). In chronic pancreatitis, the pancreatic duct is frequently dilated with one or more obstructive lesions. Ongoing attacks of pancreatitis may lead to diabetes, steatorrhea and pancreatic stones. Early endoscopic sphincterotomy can slow the progressive nature of the disease and has been suggested as initial choice of treatment. With continued symptoms, lateral pancreaticojejunostomy (Puestow procedure) in dilated and obstructed ductal anatomy has been found to decrease significantly the pancreatitis episodes, relieve the recurring abdominal pain and arrest the progression of exocrine and endocrine insufficiency. Recently, the Frey procedure adding pancreatic head coring to the pancreaticojejunostomy has provided pain relieve in more than 85% of children with chronic pancreatitis.

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EXIT Procedure

Large fetal neck masses can cause airway obstructions with potential fetal mortality after delivery. The EXIT procedure refers to EX-utero Intrapartum Treatment, a technique for safety managing airway obstruction at birth in which placental support is maintained until the airways is evaluated, surgically corrected and secure. The technique leaves an intact feto-placental circulation and guarantees a normal fetal oxygenation while fetal airway patency is secured. The EXIT procedure is indicated for infants diagnosed by prenatal ultrasonography and born with airway obstruction caused by laryngotracheal atresia and head and neck masses including hemangiomas, teratomas, goiter, epignathus and lymphangiomas. These are tumors with a high mortality rate if airway control is not obtained before clamping the umbilical cord. During the EXIT procedure the infant can undergo bronchoscopy, tracheostomy or resection of the neck mass. For success a team approach consisting of a pediatric surgeon, obstetrician, anesthesiologist, operating room staff and neonatologist is warranted. Since the procedure depends on a cesarean section,

mothers experience more postpartum wound complications and blood loss. Maternal outcome is good overall.

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