Duodenal Duplications

Bowel duplications are congenital anomalies that occur anywhere in the gastrointestinal tract from mouth to anus. Duplications are spherical or tubular in shape, located in or adjacent to the wall of part of the gastrointestinal tract (dorsal or mesenteric side of the native bowel), have smooth muscle in their walls, and are lined by alimentary tract mucosa. Duodenal duplications (DD) comprise 5 to 10% of all bowel duplications. DD usually present with a palpable abdominal mass, obstructive symptoms (vomiting), bleeding (from heterotopic gastric mucosa), perforation or pancreatitis. Most develop symptoms during the first two years of life. DD are usually attached by a common muscularis posteromedial to the duodenum, partly embedded in the pancreas with no communication with the lumen. Diagnosis can be established by the finding of “gut signature” on ultrasound - the hyperechoic inner layer produced by the mucosa surrounded by a hypoechoic outer layer caused by smooth muscle. CT, ERCP and MR-Cholangiography can identify location, size, associated structures and bile ductal anatomy. Management of duodenal duplications depends on the association of this lesion to the native duodenum, pancreas and biliary system. Preop or intraoperative cholangiography should be done whenever the biliary system is involved. Preferred management is complete excision whenever possible, but mucosal stripping or marsupialization are acceptable alternatives.

References:

Gynecomastia

Gynecomastia refers to abnormal breast enlargement in males. In children, gynecomastia can be classified as simple pubertal, pathological, general obesity and pectoral muscle hypertrophy. Most cases of gynecomastia are simple pubertal associated to a transient or permanent disturbance in steroid hormone physiology occurring when the male breast is exposed to a decreased ratio of androgen to estrogen. Pubertal gynecomastia can be
managed non-operatively since breast enlargement start one year after the onset of puberty and subside two years later. Pathological gynecomastia is associated with drug use (steroids, digitalis, spironolactone, marijuana), chronic liver disease or malignancy (Leydig cell tumor of the testis). General obesity is associated with fat deposition surrounding breast tissue that lends itself to weight reduction. Diagnosis is by history and physical exam. Routine endocrine work-up is not cost effective. Persistent pain, uncertain diagnosis and cosmetic reasons (embarrassment or distress) are the major reasons for operation. Subcutaneous mastectomy through a periareolar incision gives the best cosmetic results. Common late postoperative sequelae are inverted areolae, hypopigmentation and hypoesthesia of the areolar region.

References:

Idiopathic Bowel Perforation

Bowel perforation causing pneumoperitoneum during the neonatal period is usually associated with necrotizing enterocolitis (leading cause), atresias, meconium ileus, and Hirschsprung's disease. Other times they are iatrogenic (misplaced tubes, vigorous resuscitation and drug-related). There is a group of newborns with spontaneous isolated bowel perforation and no evidence of the above disease disorder termed idiopathic bowel perforation (IBP). IBP can occur in the stomach, small, large bowel, and appendix. The perforation is single, small, on the antimesenteric wall, measuring less than one cm with almost minimal surrounding bowel necrosis. A suggested etiologic factor consists of ischemic necrosis secondary to a very localized vascular accident. Diagnosis is made after finding pneumoperitoneum is found in simple abdominal films. After resuscitation, hydration and antibiotherapy, management is surgical. Gastric perforations are sutured and in proximal bowel perforations resection and anastomosis can be done. In distal bowel perforations ganglionic segment should be exteriorized. Hirschsprung's disease should be excluded by multiple seromuscular frozen section and rectal biopsy. IBP carries a good prognosis with a survival rate above 80%.

References: