



PEDIATRIC SURGERY UPDATE ©

Vol 06 No 01 JANUARY 1996

Neonatal Jaundice

Jaundice in newborns is usually physiological, benign, and self-limiting. Persistent conjugated hyperbilirubinemia (greater than 20% of total or 1.5 mg%) must be urgently evaluated. Initial evaluation should include: well-taken history, physical exam, partial and total bilirubin determination, type and blood group, Coombs' test, reticulocyte cell count and a peripheral smear. Cholestasis means a reduction in bile flow in the liver, which depends on the biliary excretion of the conjugated portion. Reduced flow causes progressive damage to hepatic cells. The etiology of the cholestatic infant is classified as infectious, structural, metabolic and systemic. Structurally related etiologies are surgical causes (Biliary atresia). Non-surgical sources are characterized by a sick, low weight infant jaundiced since birth. The diagnostic evaluation of the cholestatic infant should include a series of tests that can exclude perinatal infectious (TORCH titers, hepatitis profile), metabolic (alpha-1-antitrypsin levels), systemic and hereditary causes. Ultrasound of abdomen should be the first diagnostic imaging study done to evaluate the presence of a gallbladder, identify intra or extrahepatic bile ducts dilatation, and liver parenchyma echogenicity. Nuclear studies of bilio-enteric excretion (DISIDA) after pre-stimulation of the microsomal hepatic system with phenobarbital for 3-5 days should follow. Percutaneous liver biopsy and mini-laparotomy may give the final clue toward a structural defect. Diagnostic laparoscopy has recently been found useful in the evaluation of the cholestatic infant.

Recurrent TEF

Esophageal atresia is the most common congenital anomaly of the esophagus. 85% of such newborns also have a tracheo-esophageal fistula (TEF) connecting the distal esophagus with the trachea. Management consists of thoracotomy, closure of the TEF and primary end to end esophago-esophagostomy. The three most common anastomotic complications are in order of frequency: stricture, leakage and recurrent TEF. Recurrent TEF after surgical repair for esophageal atresia occurs in approximately 3-15% of cases. Tension on the anastomoses followed by leakage may lead to local inflammation with breakage of both suture lines

enhancing the chance of recurrent TEF. Once established, the fistula allows saliva and food into the trachea, hence clinical suspicion of this diagnosis arises with recurrent respiratory symptoms associated with feedings after repair of esophageal atresia. Diagnosis is confirmed with cineradiography of the esophagus or bronchoscopy. A second thoracotomy is very hazardous, but has proved to be the most effective method to close the recurrent TEF. Either a pleural or pericardial flap will effectively isolate the suture line. Pericardial flap is easier to mobilize, provides sufficient tissue to use and serves as template for ingrowth of new mucosa should leakage occur. Other alternatives are endoscopic diathermy obliteration, laser coagulation, or fibrin glue deposition.

Anal Fissure

Anal fissure is the most common cause of rectal bleeding in the first two years of life. Outstretching of the anal mucocutaneous junction caused by passage of large hard stools during defecation produces a superficial tear of the mucosa in the posterior midline. Pain with the next bowel movement leads to constipation, hardened stools that continue to produce cyclic problems. Large fissures with surrounding bruising should warn against child abuse. Crohn's disease and leukemic infiltration are other conditions to rule-out. The diagnosis is made after inspection of the anal canal. Chronic fissures are associated with hypertrophy of the anal papilla or a distal skin tag. Management is directed toward the associated constipation with stool softeners and anal dilatations, warm perineal baths to relax the internal muscle spasm, and topical analgesics for pain control. If medical therapy fails excision of the fissure with lateral sphincterotomy is performed.

*Edited by: **Humberto L. Lugo-Vicente, MD, FACS, FAAP**

P.O. Box 10426, Caparra Heights Station, San Juan, Puerto Rico 00922-0426.

Tel (787)-786-3495 Fax (787)-720-6103

E-mail: titolugo@coqui.net Internet Address: <http://home.coqui.net/titolugo>