



PEDIATRIC SURGERY UPDATE ©

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Congenital Hydrocele: When to do Surgery?

Congenital hydroceles are common during the first six months of life (prevalence 58%). They can either be found in the scrotum, the cord, or intra-abdominally. Most are extravaginal (communicating) type. They generally are round, movable, non-tender, non-reducible and can be trans-illuminated with a short intensity light. Most (>90%) resolve spontaneously between nine months and a year of age. Surgery is indicated for those which persist after the first year of life, produce discomfort, cannot be differentiated from an inguinal hernia, or are associated to hydrocephalus and V-P shunts (the tubing tend to migrate into the hydrocele) . They are not associated to testicular damage or late infertility. What cause them?: a pathological increase filtration of fluid (lymph) from the parietal tunica vaginalis rich in proteins which cannot be drained into the peritoneal cavity because the procesus vaginalis closes too early.

Biliary Atresia

Biliary Atresia continues to create controversy in management among surgeons. There is agreement that persistent direct hyperbilirubinemia beyond the first two weeks of life demands thorough work-up to rule out biliary atresia. This should include: HIDA scan with five day phenobarbital p.o. preinduction, TORCH, alpha-1-antitrypsin levels, and if there is no hepatobiliary excretion a percutaneous liver biopsy. After work-up patients will undergo mini-lap, cholangiogram and hepatic biopsy. A Kasai procedure (hepatico-portoenterostomy) will then follow in most cases during this initial diagnostic procedure. Cholangitis is the most common post-op complication which will reduced bile flow. Long-term survival is determine by: age at time of surgery, size of fibrous cord ductules (>150 microns), and degree of hepatic fibrosis. Significant predictors of poor outcome are: 1) Caucasian race; 2) operative age over 60 days; 3) cirrhosis at initial biopsy; 4) non-patent extrahepatic ducts; 5) absent ducts at the plane of hepatic hilar transection; and 6) postoperative varices or ascites. Antibiotics (trimethoprim-sulfamethoxazole) and cholericics (phenobarbital, ursodeoxycholic acid) are recommended as long term therapy. As Dr. Hoffman

has stated in his recent book "Current Controversies in Biliary Atresia", the Kasai procedure is best viewed as a staging operation which provides cure for some and a bridge to liver transplantation for others. The single most telling prognostic sign of operative success is bile drainage which is reported in 60-80% of children after Kasai is undertaken before 10 weeks of life. Portal hypertension is a common late complication in both jaundice and jaundice-free patients. Long term survival for pts undergoing Kasai ranges from 29-66% at five years.

Golytely: How much to give?

Golytely a polyethylene glycol (PEG) electrolyte solution introduced in 1980, has proven safe in infants and children. PEG is an osmotic agent which eliminates water absorption or secretion from the GI tract. Rates of administration of 25-35 cc/kg/hr for 4-6 hrs given by NG tube causes a mechanical washout effect reducing 80% of viable bacteria of colon, but no qualitative change in fecal flora. Uses: colo-recto-urinary surgery and colonoscopy. Few complications: vomiting, abdominal distension or lung aspiration. Series in children are too small to imply an isolated effect in reducing septic complications without use of systemic antibiotherapy.

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