



PEDIATRIC SURGERY UPDATE ©

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IPBD

Idiopathic Perforation of the Bile Ducts (IPBD) is the second most common cause of surgical jaundice restricted to the first three months of life (biliary atresia is first). The pathogenesis is unknown, most attractive theory is faulty embryogenic malformation of common bile duct associated to distal mechanical obstruction (sludge, stenosis, etc.). Most perforations occur at the junction of the cystic duct with the common bile duct. The infant presents an indolent course of jaundice, acholic stools, choluria, failure to thrive, and progressive abdominal distension most commonly. Less frequently the clinical course is acute with peritonitis and systemic signs of sepsis. Bilious ascites (localized) is the hallmark finding and is pathognomonic of IPBD in this age group. Ultrasound shows loculated ascitic fluid in porta hepatis and can help to guide diagnostic paracentesis (bile fluid). DISIDA scan confirms the diagnosis showing extravasation of isotope to the peritoneum. Management is surgical (medical tx is fatal), consist of intraoperative diagnostic cholangiography, tube cholecystostomy for follow-up, penrose drainage of porta hepatis, systemic antibiotics and TPN. Most perforations seal by 2-3 wk., the drains can be removed when tube cholangiogram shows a patent biliary tree. Prognosis is excellent with absent hepato-biliary long-term sequelae.

Hypothermia

Human beings are homeothermic organisms because of thermoregulation. This equilibrium is maintained by a delicate balance between heat produced and heat lost. Heat production mechanisms are: voluntary muscle activity increasing metabolic demands, involuntary muscle activity (shivering) and non-shivering (metabolizing brown fat). Heat loss occurs from heat flow from center of the body to the surface and from the surface to the environment by evaporation, conduction, convection and radiation. There is an association between hypothermia and mortality in the NICU's. The surgical neonate is prone to hypothermia. Below the 35 degrees centigrade the newborn experiences lassitude, depressed respiration, bradycardia, metabolic acidosis, hypoglycemia, hyperkalemia, elevated BUN and oliguria (neonatal cold injury syndrome). Factors that precipitate further these problems are: prematurity,

prolonged surgery, and eviscerated bowel (gastroschisis).

IA: Female Concepts

The most frequent defect in females patient with imperforate anus (IA) is vestibular fistula, followed by vaginal fistulas. In more than 90% of females cases perineal inspection will confirmed the diagnosis. These infants require a colostomy before final corrective surgery. The colostomy can be done electively before discharge from the nursery while the GI tract is decompressed by dilatation of the fistulous tract. A single orifice is diagnostic of a persistent cloacal defect usually accompany with a small- looking genitalia. Cloacas are associated to distended vaginas (hydrocolpos) and urologic malformations. This makes a sonogram of abdomen very important in the initial management of these babies for screening of obstructive uropathy (hydronephrosis and hydroureter). Hydrocolpos can cause compressive obstruction of the bladder trigone and interfere with ureteral drainage. Failure to gain weight and frequents episodes of urinary tract infections shows a poorly drained urologic system. A colostomy in cloacas is indicated. 10% of babies will not pass meconium and will develop progressive abdominal distension. Radiological evaluation will be of help along with a diverting colostomy in this cases. Perineal fistulas can be managed with cutback without colostomy during the neonatal period.

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