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Hydrometrocolpos

Hydrometrocolpos (HMC) is accumulation of secretions in the vagina and uterus caused by one of two mechanisms: 1- excessive intrauterine stimulation of the infant's cervical mucous glands by maternal estrogen (secretory HMC), or 2- accumulation of urine (urinary HMC)in the presence of a vaginal obstruction. HMC can arise from congenital or acquired pathology. Acquired causes include vaginitis from Diphtheria or measles, senile vaginitis, from radiation therapy and corrosive vaginitis. Congenital vaginal obstruction causing HMC is due to imperforate hymen, transverse vaginal septum and persistence of urogenital sinus with complete distal vaginal obstruction. The child may present with a lower abdominal mass from the dilated vagina and uterus, urogenital sinus, obstructive uropathy (hydronephrosis), dribbling, respiratory distress, bowel obstruction and lower extremity venous congestion. HMC usually occurs in the neonatal period and the majority of cases are caused by vaginal occlusion by a transverse septum combined with cervical secretion. HMC can be associated with congenital adrenal hyperplasia when there is a long urogenital sinus. Physical exam (obvious vagina septum of imperforate hymen or a urogenital sinus), US (large cystic anechoic mass, anteriorly compress bladder and fluid-debris level), voiding cystogram, and sinoscopy can establish the cause of HMC. Vaginal decompression by catheter placement, endoscopic septotomy or vaginostomy is done initially followed later by opening of septum or vaginal pull-through.

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Preduodenal Portal Vein

Preduodenal portal vein (PDPV) is an extremely rare vascular anomaly that could cause extrinsic obstruction of the second portion of the duodenum. This vascular anomaly is often symptomless, but in a few occasions can lead to intestinal obstruction requiring surgical correction. In 50% the PDPV is combined with high intestinal obstruction and in one half of these is considered obstructive. Embryologically, the anomalous portal vein is the persistence of a preduodenal vitelline communicating vein and passes in front of the second portion of the duodenum. Most cases can be seen associated with duodenal atresia/stenosis, polysplenia, malrotation, annular pancreas, extrinsic adhesive bands, biliary atresia and cardiac defects. US can establish the diagnosis and UGIS will show a dilated stomach and first part of the duodenum with passage disturbance in the 2nd portion of the duodenum during fluoroscopy. PDPV is an extrinsic cause of duodenal obstruction that rarely needs bypass procedures. Duodenoduodenal anastomosis anterior to the portal vein is the procedure of choice to manage this anomaly.

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Splenic Trauma

Spleen is the most common injured organ in blunt abdominal trauma. Hematologic and immunologic importance of the spleen has changed the attitude of trauma surgeons toward preservation of this organ whenever hemodynamics physiology permits. Massive hemorrhage (> 50 cc/kg weight) and hemodynamic instability are indications for surgery. CT-Scan continues to be the choice of imaging during blunt abdominal trauma to establish the diagnosis of solid organ rupture in blunt abdominal trauma and rule out other major abdominal injuries. Isolated splenic rupture can be managed conservative in almost 80-90% of cases reducing complications and post-splenectomy sepsis. Low velocity of injury, thicker capsule, ribs elasticity and transverse nature of the laceration explain propensity for spontaneous healing in children. Associated lesions are not a contraindication for conservative management. Should conservative management fails the next step is splenography or splenectomy. Child is admitted to intensive care for 48 hours, followed by in-hospital observation until stable to be discharge home. Vaccination (pneumococcus, hemophilus and meningococci) affords added protection. Sonography is helpful for sequential splenic imaging to show when the appearance returns to normal, though clinical exam suffices. Participation in body contact sports should be curtailed for at least three

months after injury.

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