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Esophago-Gastric Dissociation

Gastroesophageal reflux is a common and distressing problem in neurologically affected children. Couple with diminished salivary clearance, pharyngo-esophageal incoordination and esophageal dysmotility the incidence of pulmonary aspiration and infection is increased in this pediatric population. Fundoplication and gastrostomy are effective in providing nutrition, reducing aspiration and improving quality of care. Unfortunately, a large number of these kids develop complications after the fundoplication. They include: wrap herniation into chest (entire or paraesophageal), disruption, gagging, retching and recurrent preop GER symptoms (vomiting and pneumonia are the most troublesome). Theories explaining this high rate of failure are: supine position, swallowing incoordination, esophageal dysmotility, spasticity, seizures, delayed gastric emptying, chronic constipation and scoliosis (increase intraabdominal pressure). Recurrent reflux can be managed with redo fundoplication, though postoperative complications increase significantly. A viable alternative is esophago-gastric dissociation (EGD). EGD consists of closing the esophagogastric junction and establishing bowel continuity with a Roux-en-y esophagojejunostomy and an end-to-side jejuno-jejunostomy while feeding the child through the gastrostomy along with unrestricted oral intake. The procedure allows free passage of saliva avoiding the obstructive nature of a fundoplication (tight wrap) in a child with esophageal dysmotility. EGD is indicated in children with pathological reflux and severely neurological disorders, poor or none oral feeding and difficult to manage pharyngo-esophageal incoordination and esophageal dysmotility.

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Testicular Torsion

Whenever an infant or child develops acute scrotal pain, swelling and/or redness of the scrotum the diagnosis of testicular torsion should be highly entertained. Testicular torsion

(TT) is the most common pediatric urological emergency. TT can occur extravaginally or intravaginally. Extravaginal TT is a perinatal event (in utero) which occurs when the spermatic cord undergoes torsion at the level of the external ring causing strangulation of all the scrotal content. The infant present with a firm, hard, painless scrotal mass. In few cases exploration will yield a viable testis. The infarcted testis is removed and the contralateral testis pexed to avoid a future problem of this nature. Intravaginal TT occurs due to an anomalous attachment of the tunica vaginalis (bell clapper deformity) causing the gonad to twist upon its vascular pedicle. Due to the disparity in size and weight of pubertal testis, torsion occurs most frequently in adolescents. Child develops sudden scrotal pain, edema, nausea and vomiting. Cremasteric reflex is lost. Color Doppler sonography (readily available and non-invasive) in experienced hands or Technetium scan are both reliable in suggesting the diagnosis. Immediate scrotal exploration is the best means available of establishing the diagnosis and saving a testis in TT. Whether you remove a dead testis or relieve the torsion the contralateral testis should also be pexed.

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Alkaline Reflux

Alkaline (pH > 7) gastroesophageal reflux (AGER) is not so rare in children affecting 10% of all refluxers. Acid reflux is more common (50%), followed by combined acid-alkaline reflux (20%). AGER causes gastritis and esophagitis and is associated with repetitive vomiting, excessive crying and chronic respiratory disease. In an alkaline environment trypsin and deconjugated bile salts produce the greatest injury to the esophageal mucosa. Simultaneous gastroesophageal pH monitoring can help establish the diagnosis. Medication can be specifically aimed to the individual pH pattern. Use of prokinetics to enhance motility might be a better solution in the child with AGER. The child with an antireflux procedure and gastropyloric dysfunction might continue with dyspeptic symptoms and gastritis needing further therapy. The aim is guide clinicians to choose efficient anti-reflux therapy based on the type of reflux.

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

Professor / Academic Director of Pediatric Surgery, University of Puerto Rico School of Medicine and
University Pediatric Hospital, Rio Piedras, Puerto Rico.

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

Tel (787)-786-3495 Fax (787)-720-6103 E-mail: *titolugo@coqui.net*

Internet: <http://home.coqui.net/titolugo>

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