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Laparoscopic Inguinal Herniography

Besides using the laparoscopic technique for identifying a contralateral patent processus vaginalis using a trans-inguinal approach or repair a recurrent inguinal hernia, the minimally invasive approach can also be use for repair of inguinal hernias in children. The technique consists in closing the neck of the hernial sac with a purse string suture. Advantages of the lap procedure include the ability to diagnose and repair concomitantly a contralateral hernia defect due to excellent visual effect, the ability to diagnose a direct inguinal hernia, better cosmetic result, and less surgical dissection. This last issue is called “access trauma” or repair of all the damage caused in gaining the initial access to ligate a hernial sac. Another benefit is that there is no dissection of the cord structures so that the risk of superior displacement of the testis, testicular atrophy, injury to vas deferens and stitch granuloma is less likely. Disadvantages include a longer procedure, higher recurrent rates, development of residual hydrocele in males along with the complications attendant in violating the abdominal cavity (vascular and bowel injury caused by Veress needle and trocar insertion). Most surgeons still prefer to do an open subcutaneous procedure with high ligation of hernia sacs as standard repair of inguinal hernia in infants and children.

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Congenital Diaphragmatic Hernia Update

Congenital Diaphragmatic Hernia (CDH) continues to carry a high mortality and morbidity. The mortality is the result of lethal pulmonary hypoplasia, the presence of a lethal associated anomaly (usually a cardiac defect), central nervous system bleeding/injury from aggressive medical management (i.e., ECMO), or iatrogenic barotrauma. Lethal pulmonary hypoplasia will probably rest its solution in fetal intervention as more prenatal techniques

are used to identify the fetus with such a problem (progressive ipsilateral pulmonary artery hypoplasia measure with fetal echo-doppler and fetal lung volume measurement by magnetic resonance imaging correlates with progressive fetal lung hypoplasia and worse postnatal outcomes). The recent postnatal trends in management of babies suffering from CDH rest on three principles that have been found to reduce mortality and morbidity: 1) use of soft mechanical ventilation (spontaneous mechanical ventilation and minimal inspiratory pressure settings) with permissive hypercapnia, 2) delay surgical repair until hemodynamic, ventilatory and acid-base stabilization, 3) avoiding ipsilateral chest tube placement since they cause negative pressure gradient reducing lung deflation leading to lung injury and barotrauma.

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Fecal Incontinence

Fecal incontinence (FI) in children is usually the result of a congenital (imperforate anus, Hirschsprung's disease and myelomeningocele) or acquired (trauma, pelvic tumor resection and spinal cord injury) condition. FI causes a psychological, developmental and social stress of great magnitude. Assessment of the problems includes the use of anal tonometry, electromyography and pudendal nerve terminal motor latencies. Rectal emptying and angulation can be evaluated with defecograms, MRI or scintigraphic proctography. The management of FI is complex. For HD biopsychosocial treatment consisting of explanation, extinction of fear and avoidance behavior, learning new defecation behavior, learning an adequate straining technique, and generalization toward daily life have been effective. Biofeedback is a harmless and inexpensive treatment coordinating pelvic floor muscle contraction with the sensation of rectal filling but has brought partial success in children with FI. Other less effective forms of treatment are dynamic graciloplasty and sacral nerve stimulation. Functional constipation associated with fecal incontinence and the presence of segmental dilatation of the sigmoid or rectum responds poorly to medical management. The megabowel lacks an adequate anorectal reflex, shows decrease propulsive function causing a functional obstruction. Segmental resection of the dilated segment has brought successful relief of symptoms. Antegrade enemas by way of an appendicocecostomy or cecostomy tube can achieve total colonic

evacuation and socially controlled continence in children with anorectal malformations and caudal agenesis in a high percentage of cases.

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