



PEDIATRIC SURGERY UPDATE ©

Vol 04 No 05 MAY 1995

Laparoscopic Appendectomy

Semm, a gynecologist, is credited with inventing Laparoscopic Appendectomy (LA) in 1982. With the arrival of video-endoscopic procedures the role of LA in the management of acute appendicitis in children has been studied and compared with the conventional open appendectomy (OA). General advantages of LA identified are: ease and rapid localization of the appendix, ability to explore and lavage the entire abdominal cavity, less cutaneous scarring, more pleasing cosmetically, and a rapid return of intestinal function and full activity. Disadvantages are: expensive instrumentation, time-consuming and tedious credentialing, and the major benefit is in the postop period. Analyzing the results of several series that compare LA vs. OA in the management of acute appendicitis we can conclude that LA: produces no difference with OA in respect to OR complications and postop morbidity, has a longer operating and anesthesia time, higher hospital costs, a shorter length of stay, less postop pain, less pain medication requirement, and shorter convalescence. One series warned that complicated cases of appendicitis done by LA could increase the postop infectious rate requiring readmission. Otherwise, they all favored LA in the management of appendicitis. Still, unresolved issues in my mind are: Does LA reduces postop adhesions?, Is it necessary to remove a normal looking appendix during a negative diagnostic laparoscopy performed for acute abdominal pain?, Will the increase intrabdominal pressure alters the diaphragmatic lymphatic translocation of bacteria favoring higher septic rates in complicated cases?

Pyocele

Infected hydroceles (pyoceles) are extremely rare in infants and children, but they should always be included in the differential diagnosis of a tender suspicious testicular mass. Thought to be caused by intraperitoneal infection (perforated appendicitis) that extends into the scrotum through a patent processus vaginalis, the few reported cases in the literature has no intra-abdominal cause (idiopathic) and the most plausible explanation is hematogenous route of infection. Testicular scan will show adequate vascular flow and Ultrasound Doppler investigation will show a complex mass with

internal echoes separated from the testis (paratesticular) suggesting a tumor at times. Management consist of exploration of the scrotum through an inguinal approach, evacuation of the hydrocele, high ligation, and culture routine. Patient is placed on antibiotherapy during the postop period.

CDH- Delayed Presentation

Congenital Diaphragmatic Hernia (CDH) associated with pulmonary hypoplasia is a common cause of severe respiratory distress in the newborn. Delayed presentation beyond the neonatal period is rare, estimated to occur in 4-6% of cases. Infants and children will present with either respiratory or gastrointestinal symptoms such as: chronic respiratory tract infection, vomiting, intermittent intestinal obstruction, and feeding difficulty. Occasionally the child is asymptomatic. The small size of the defect protected by either the spleen or the liver and the presence of a hernial sac may delay the intestinal herniation into the chest. A rise intrabdominal pressure by coughing or vomiting transmitted to any defect of the diaphragm makes visceral herniation more likely. Diagnosis is confirmed by chest or gastrointestinal contrast imaging. Management consists of immediate surgery after preop stabilization. Most defects can be closed primarily through an abdominal approach. Chest-tube placement in the non-hypoplastic lung is of help. Surgical results are generally excellent. A few deaths have resulted from cardiovascular and respiratory compromise due to visceral herniation causing mediastinal and pulmonary compression.

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

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

Tel (787)-786-3495 Fax (787)-720-6103

E-mail: titolugo@coqui.net Internet Address:<http://home.coqui.net/titolugo>