



PEDIATRIC SURGERY UPDATE ©

Vol 08 No 05 MAY 1997

Diaphragmatic Eventration

Diaphragmatic eventration (DE) refers to an abnormally high position of part or all of the diaphragm usually associated with a marked decrease in muscle fibers and a membranous appearance of the abnormal area. Etiologically DE is congenital (developmental anomaly characterized by muscular aplasia), or acquired (paralysis due to phrenic nerve injury). Acquired eventration may be associated to use of forceps, breech presentation, tumors, brachial plexus injury, cephalhematoma, thoracic surgery, or clavicular fractures. Anatomically DE may be complete, partial or bilateral. Most children with DE are asymptomatic when incidentally first seen and will not need therapy. Motion of the affected diaphragm may be normal, absent, diminished or paradoxical. Those with symptoms develop acute respiratory distress, difficult feeding, and recurrent pneumonitis the result of decreased pulmonary parenchymal volume. Those whom will need assisted ventilation or cannot be weaned off the ventilator should be plicated. Most authors favor a transthoracic repair (plication) of the DE. Abdominal approach is used for bilateral cases. Plication must be done with sound knowledge of the anatomic distribution of the phrenic nerve. Failure to achieve extubation within a week of plication is an ominous prognostic sign. Late functional results of plication does not interfere with further development of the diaphragm.

Neonatal Ovarian Cysts

With the arrival of routine prenatal sonography (US) the number of fetal pelvic-abdominal cystic lesions later confirmed as ovarian cyst has increased. The vast majority of these cysts are unilateral, benign and functional. The pathological cause of these cysts is still unknown, but suggests that there was probably an abnormal stimulation by the mother's human chorionic gonadotropin or abnormal enzyme activity of the theca interna. Most are histologically follicular cysts, lined by granulosa epithelium having a diameter greater than 1 mm on microscopic section. Although mostly asymptomatic, abdominal distension and/or palpable mass is the major clinical feature. Management of ovarian cysts in newborns is dictated by size and ultrasound characteristics (simple or complex). Most small (< 4 cm) simple cysts will

involute with time and should be observed with serial ultrasounds to avoid unnecessary operations. Those greater than 5 cm increase their potential for torsion, hemorrhage, or rupture. They can be percutaneously aspirated guided by US or laparoscopy. Recurrent, large, or echo-complex cystic masses may need open surgical removal. If the ovarian tissue is viable, it should be preserved as much as possible after trimming away most of the membrane of the cyst. Infarcted ovarian cysts (chocolate cysts) may need oophorectomy.

Esophageal Polyps

Polyps found in the esophagus of a child are extremely rare events. Most are identified in the esophago-gastric junction or distal third of the esophagus during routine esophagogram for gastroesophageal reflux. Polyps associated to reflux and esophagitis are of inflammatory nature and can be managed with either antireflux medication or surgically (fundoplication). Biopsy of the lesion will demonstrate squamous and gastric mucosa with inflammatory infiltrates. Other lesions with a similar radiographic appearance include: varices, foreign bodies, thickening due to esophagitis and true neoplasms. Esophageal squamous papilloma has been reported in children causing intermittent bleeding and vomiting. The pathogenesis of esophageal squamous papilloma is not known, but chronic mucosal irritation and infection with human papilloma virus are most probable mechanisms. Management is either endoscopic or surgical resection.

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