PEDIATRIC SURGERY UPDATE ©
Vol 06 No 06 JUNE 1996

Nodular Fasciitis

First reported in 1955 by Konwaler, Nodular fasciitis (NF) is a discrete, reactive pseudosarcomatous proliferation of fibroblasts. This soft tissue fibrous tumor portrays as a rapidly growing, solitary, slightly tender, soft tissue mass (or nodule) dating for 1-2 weeks. Forearm, thigh and upper arm nodules are the most common sites of presentation in young adults. In children, NF originates in the head and neck area between the age of 3 wks and six years (median 18 months). Males and females are equally affected, and lesions reach 0.5 to 9 cm in size. The cranial variety of NF (in the scalp) can cause erosion of the underlying outer table of the skull. Pathologically, NF shows a pattern of delicate fibroblasts in a focal myxoid matrix with areas of hemorrhage, vascular proliferation, and chronic inflammation. Occasional cells with atypical nucleus are found, but mitotic figures are never seen. Management consists of wide local excision of the mass (with local resection or curettage of affected bone). Clinical course is benign, and the lesion shows no aggressive behavior. Recurrences are uncommon, when they occur should question the original pathological diagnosis.

SMAS

The Superior Mesenteric Artery Syndrome (SMAS), first described by Rokitanski in 1861, is infrequently seen in the pediatric age. Any condition that decreases the angle between the superior mesenteric artery and the aorta resulting in vascular compression of the third portion of the duodenum (nutcracker effect) causes SMAS. Underneath this angle lie three structures: transverse portion of the duodenum, left renal vein, and uncinate process of the pancreas (see the figure). Conditions that predispose to SMAS are: wasting and dietary disorders (anorexia nervosa), severe injury (burns and trauma), deformity of the spine (increased lordosis, spica cast), prolonged bed rest (paraplegia), and the postoperative state. Clinically the patient manifests acute or chronic symptoms of partial high small bowel obstruction: postprandial nausea and bilious vomiting, epigastric discomfort, bloating, weight loss, and relief with side lying or knee-to-chest position. UGIS is diagnostic demonstrating abrupt vertical obstruction of the duodenum with

antiperistaltic flow (to and fro) of contrast material. Initial therapy should be conservative lying in prone/ left lateral position postprandially, and naso-jejunal feedings. No improvement may need surgical derotation of the proximal small bowel through the ligament of treitz restoring it to an embryonic position, or bypass procedure (duodeno-jejunostomy).

Laparoscopic Fundoplication

Fundoplication for the management of symptomatic gastroesophageal reflux (GER) is another procedure that has evolved recently taking advantage of minimally invasive technique. Indications for performing either the open or laparoscopic fundoplication are the same, namely: life threatening GER (asthma, cyanotic spells), chronic aspiration syndromes, chronic vomiting with failure to thrive, and reflux induced esophageal stricture. Studies comparing the open versus the laparoscopic technique in the pediatric age have found a reduced mean hospital and postoperative stay with laparoscopy. The lap procedure seems similar to the open regarding efficacy and complication rates. Costs are not excessive, they are even lower if you take into consideration the shorter length of stay. Lower rate of adhesions, pulmonary and wound complications are another benefit of the lap technique suggested. Percutaneous laparoscopic gastrostomy can be done concomitantly for those neurologically impeded children refer with feeding problems and GER. Whether to do a complete (Nissen) or partial (Toupee, Thal, or Boix-Ochoa) wrap relies on the experience of the surgeon with the open procedure. He should continue to do whatever procedure he used to perform using open surgery. Long-terms results of complications or recurrence of GER are still pending publication.

****

*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