



PEDIATRIC SURGERY Update ©

Vol 20 No 03 MARCH 2003

Ostomy Prolapse

Though colostomies ileostomies or jejunostomies play a major role in the management of gastrointestinal disorder in children they can be associated with complications. These include skin excoriation, retraction, prolapse and stricture. Most stomal creation is required during the neonatal period. Stomal prolapse is the most common complications encounter in clinical practice (20%) since very dilated bowel must be brought through a thin abdominal wall. Colostomies sited in the transverse colon have the highest incidence of prolapse. Whenever possible the stoma should be constructed away from the surgical wound. End enterostomies rarely prolapse. Prolapses are more common with loop enterostomies and usually involves the distal non-functioning limb. Mild prolapse is usually inconsequential and requires no revision. All prolapses (proximal or distal) should be manage as an emergency trying initially to reduce it promptly before swelling, mechanical obstruction or ischemia ensues. For reduction to be effective consciously sedate the child, lubricate the bowel with jelly to avoid mucosal injury and start from distal to proximal squeezing gently the intestinal wall. If the prolapse becomes severe, recurrent, or occurs in the proximal limb causing mechanical obstruction then surgical revision becomes necessary. Some temporary measures suggested by other authors include purse string suture based on the Thiersch principle or anchoring the bowel loop to the skin away from the stoma. Whenever possible early closure of the stoma should be done.

References:

- 1- Gauderer MW, Izant RJ Jr.: A technique for temporary control of colostomy prolapse in children. *J Pediatr Surg* 20(6):653-5, 1985
- 2- Golladay ES, Bernay F, Wagner CW: Prevention of prolapse in pediatric enterostomas with purse string technique. *J Pediatr Surg* 25(9):990-1, 1990
- 3- Millar AJ, Lakhoo K, Rode H, Ferreira MW, Brown RA, Cywes S: Bowel stomas in infants and children. A 5-year audit of 203 patients. *S Afr J Surg* 31(3):110-3, 1993
- 4- Cheung MT: Complications of an abdominal stoma: an analysis of 322 stomas. *Aust N Z J Surg* 65(11):808-11, 1995
- 5- Nour S, Beck J, Stringer MD: Colostomy complications in infants and children. *Ann R Coll Surg Engl* 78(6):526-30, 1996
- 6- Steinau G, Ruhl KM, Hornchen H, Schumpelick V: Enterostomy complications in infancy and childhood. *Langenbecks Arch Surg* 386(5):346-9, 2001
- 7- Duchesne JC, Wang YZ, Weintraub SL, Boyle M, Hunt JP: Stoma complications: a multivariate analysis. *Am Surg* 68(11):961-6, 2002

Pancreatitis in Choledochal Cysts

Choledochal cysts (CC) can produce abdominal pain, obstructive jaundice, or pancreatitis. The recurrent abdominal pain associated to hyperamylasemia has been called "pseudopancreatitis" since true inflammation of the pancreas is absent. Acute edematous or necrotizing pancreatitis associated with CC is very rare. It is believed that when the bile duct pressure increases due to obstructive cholangitis pancreatic enzymes in bile may regurgitate into the blood stream and produce hyperamylasemia. Cholangiovenous reflux of amylase might cause hyperamylasemia. Other clinical studies have found that amylase in the biliary tract have access to the blood stream probably through a sinusoidal pathway by cholangiovenous reflux, and a lymphatic pathway, via the Disse's space and denuded cyst wall with bile duct pressure increases. Common denominator is an increase in ductal pressure of a partially closed common channel system. Infants with CC do not show hyperamylasemia due to physiologically low level of pancreatic amylase. The abdominal complaint and hyperamylasemia can easily subside in a short period of time with conservative treatment resulting in no demonstrable pancreatic dysfunction. Once this occurs appropriate surgical management of the choledochal cyst which includes cyst excision and Roux-en-Y hepatico-jejunostomy reconstruction should be done.

References

- 1- Todani T, Urushihara N, Watanabe Y, Toki A, Uemura S, Sato Y, Morotomi Y: Pseudopancreatitis in choledochal cyst in children: intraoperative study of amylase levels in the serum. *J Pediatr Surg* 25(3):303-6, 1990
- 2- Davenport M, Stringer MD, Howard ER: Biliary amylase and congenital choledochal dilatation. *J Pediatr Surg* 30(3):474-7, 1995
- 3- Urushihara N, Todani T, Watanabe Y, Uemura S, Morotomi Y, Wang ZQ: Does hyperamylasemia in choledochal cyst indicate true pancreatitis? An experimental study. *Eur J Pediatr Surg* 5(3):139-42, 1995
- 4- Okada A, Higaki J, Nakamura T, Fukui Y, Kamata S: Pancreatitis associated with choledochal cyst and other anomalies in childhood. *Br J Surg* 82(6):829-32, 1995
- 5- Komuro H, Makino SI, Yasuda Y, Ishibashi T, Tahara K, Nagai H: Pancreatic complications in choledochal cyst and their surgical outcomes. *World J Surg* 25(12):1519-23, 2001

Parotitis

Acute parotitis is a self-limiting disease most commonly associated with mumps (epidemic parotitis) in children. Other times the parotitis is associated with bacterial infection progressing to frank suppuration. Recurrent parotitis, also known as juvenile recurrent parotitis, is characterized by a cyclic swelling of the parotid glands associated with discomfort and/or pain in the absence of external inflammatory changes during a period of several years. The condition mainly affects children between the ages of three and six, males being more commonly affected. The symptoms peak in the first year of school and usually begin to subside after puberty. Retrograde infection induced by the mumps virus and upper respiratory infection play a major role in the etiology of recurrent parotitis. Sialography demonstrates sialectasia. Children with recurrent parotid swelling needs to be screened for underlying systemic immune disorders such as Sjogren's syndrome. With time the recurrent episodes reduce salivary flow, while increasing the chloride, sodium, copper, albumin, IgA and lactoferrin concentration. Etiology of juvenile recurrent parotitis

is a combination of congenital malformation of portions of the salivary ducts and a set-in infection. Treatment is conservative.

References:

- 1- Park JW: Recurrent parotitis in childhood. Clin Pediatr (Phial) 31(4):254-5, 1992
- 2- Mandel L, Kaynar A: Recurrent parotitis in children. N Y State Dent J 61(2):22-5, 1995
- 3- Giglio MS, Landaeta M, Pinto ME: Microbiology of recurrent parotitis. Pediatr Infect Dis J 16(4):386-90, 1997
- 4- Chitre VV, Premchandra DJ: Recurrent parotitis. Arch Dis Child 77(4):359-63, 1997

* 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>

© PSU 1993-2003
ISSN 1089-7739