



PEDIATRIC SURGERY Update © **Vol. 29 No. 01 JULY 2007**

Preauricular Tags

Preauricular skin or chondrocutaneous branchial remnant is not a rare finding in infants. Preauricular tags occur in five of every 1000 live births. They are congenital malformations that should be taken care for aesthetic reasons. Most preauricular tags are from branchial origin and contain cartilage. Excision is indicated after the age of six months under general endotracheal anesthesia as an ambulatory procedure. Cosmetic results are very good. Less than 5% of all preauricular tags are associated with other malformations of the ear/face region, most of them conductive type hearing impairment. Physical examination under such circumstances provides the first clue of a hearing disorder. Possibility increases if there is familial history of hearing impairment. When in doubt, audiometry is indicated. Another association with preauricular tag is the presence of a urinary tract anomaly which occurs in 8% of all cases. Such renal anomaly includes hydronephrosis caused by ureteropelvic obstruction or vesicoureteric reflux, and horse-shoe kidney. Some workers recommend that urinary tract ultrasonography be conducted in the routine assessment of infants with preauricular tags and multiple congenital anomalies. Specific disorders associated with tags that increase the yield of finding a renal disorder includes CHARGE association, Townes-Brocks syndrome, branchio-oto-renal syndrome, Nager syndrome, and diabetic embryopathy. Routine renal ultrasonography is not necessary in the evaluation of children with isolated preauricular tags.

References:

- 1- Kankkunen A, Thiringer K: Hearing impairment in connection with preauricular tags. *Acta Paediatr Scand.* 76(1):143-6, 1987
- 2- Atlan G, Egerszegi EP, Brochu P, Caouette-Laberge L, Bortoluzzi P: Cervical chondrocutaneous branchial remnants. *Plast Reconstr Surg.* 100(1):32-9, 1997
- 3- Kohelet D, Arbel E: A prospective search for urinary tract abnormalities in infants with isolated preauricular tags. *Pediatrics.* 105(5):E61, 2000
- 4- Wang RY, Earl DL, Ruder RO, Graham JM Jr.: Syndromic ear anomalies and renal ultrasounds. *Pediatrics.* 108(2):E32, 2001
- 5- Lizama M, Cavagnaro F, Arau R, Navarrete O, Fontanaz AM, Garcia CJ: Association of isolated preauricular tags and nephrourological anomalies: case-control study. *Pediatr Nephrol.* 22(5):658-60, 2007

Blind Loop Syndrome

The blind loop, stagnant or contaminated loop syndrome are all synonymous names give to the same pathological disease entity. This occurs when a piece of bowel has stagnation of succus entericus with inability to propel it content causing bacterial overgrowth. The resulting event of such bacterial overgrowth in the stagnant loop traduces itself into

malabsorption (from bacterial breakdown of bile salts and deamination of protein), megaloblastic anemia (from decrease Vitamin B-12 absorption), steatorrhea (from production of deconjugated bile salts toxic and ineffective for intestinal micelle formation), and fat-soluble vitamin deficiency. Clinically, blind loop syndrome is suggested by abdominal pain, feculent vomiting, steatorrhea and hypoalbuminemia. Most cases of blind loop syndrome in children occur after surgical procedures such as side to side small bowel anastomosis, side-to-side duodenojejunosomy most commonly cited. Proximal bowel dilatation after bypass procedures in duodenal or jejuno-ileal atresia can lead to the blind loop syndrome. End-to side procedures such as hepaticojejunosomy can also lead to blind loop syndrome and episodes of cholangitis. Upper gastrointestinal series studies can localize the stagnant segment of bowel. Oral antibiotic treatment can improve symptoms in some patients, though most cases will require operative excision or plication of the blind loop.

References:

- 1- Seitz W, Mangold G, Gronniger J: The blind-loop syndrome after side-to-side anastomoses of the gut. *Leber Magen Darm.* 7(2):84-90, 1977
- 2- Schwobel M, Hirsig J, Illi O, Battig U: The influence of small bowel contamination on the pathogenesis of bowel obstruction. *Prog Pediatr Surg.* 24:165-72, 1989
- 3- Stewart BA, Karrer FM, Hall RJ, Lilly JR: The blind loop syndrome in children. *J Pediatr Surg.* 25(8):905-8, 1990
- 4- Spigland N, Yazbeck S: Complications associated with surgical treatment of congenital intrinsic duodenal obstruction. *J Pediatr Surg.* 25(11):1127-30, 1990
- 5- Grosfeld JL, Rescorla FJ: Duodenal atresia and stenosis: reassessment of treatment and outcome based on antenatal diagnosis, pathologic variance, and long-term follow-up. *World J Surg.* 17(3):301-9, 1993
- 6- Halkic N, Abdelmoumene A, Kianmanesh R, Vuilleumier H: Blind loop syndrome. *Swiss Surg.* 8(5):220-3, 2002

Caudal Block

Caudal block anesthesia in infants and children is one of the most resourceful breakthrough of the past few years utilized during general endotracheal anesthesia for pediatric surgical procedures. Caudal block provides perioperative and postoperative analgesia for such infraumbilical procedures as orthopedic, genitourinary, inguinal and lower extremity. The quality and level of the caudal blockade is dependent on the dose, volume, and concentration of the injected drug. This simple, safe and inexpensive regional anesthesia procedure reduces the general anesthesia needs during surgery affecting less the hemodynamics changes, and suppressing the metabolic and endocrine responses to stress while providing postoperative analgesia. Complications associated with caudal block are rare and includes dural puncture, vascular puncture, failure to identify the sacral hiatus and toxic reactions to local anesthetics. Caudal block is an excellent adjunct in inguinal and umbilical herniorrhaphies, hydrocelectomies, orchiopexy, circumcision and perirectal surgery. With caudal block opioids use can be avoided reducing such side-effects as respiratory depression, nausea, vomiting and delayed gastric emptying. Caudal block reduces the incidence of emergence agitation and pain scores following sevoflurane anesthesia.

References:

- 1- Uguralp S, Mutus M, Koroglu A, Gurbuz N, Koltuksuz U, Demircan M: Regional anesthesia is a good alternative to general anesthesia in pediatric surgery: Experience in 1,554 children. *J Pediatr Surg.* 37(4):610-3, 2002
 - 2- Tuncer S, Yosunkaya A, Reisli R, Tavlan A, Cicekci F, Otelcioglu S: Effect of caudal block on stress responses in children. *Pediatr Int.* 46(1):53-7, 2004
 - 3- Aouad MT, Kanazi GE, Siddik-Sayyid SM, Gerges FJ, Rizk LB, Baraka AS: Preoperative caudal block prevents emergence agitation in children following sevoflurane anesthesia. *Acta Anaesthesiol Scand.* 49(3):300-4, 2005
 - 4- Silvani P, Camporesi A, Agostino MR, Salvo I: Caudal anesthesia in pediatrics: an update. *Minerva Anesthesiol.* 72(6):453-9, 2006
 - 5- Davidson AJ, Ironfield CM, Skinner AV, Frawley GP: The effects of caudal local anesthesia blockade on the Bispectral Index during general anesthesia in children. *Paediatr Anaesth.* 16(8):828-33, 2006
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