

# PEDIATRIC SURGERY Update © Vol 19 No 03 SEPTEMBER 2002

## **Parotid Mass**

A parotid mass in a child creates great concern and should be managed promptly since a high percentage of cases will harbor a malignant tumor. The more common benign parotid tumor in children includes hemangioma, pleomorphic adenoma and lymphangiomas. Infants with a rapidly enlarging violaceous or soft tumor in the parotid region harbors a hemangioendothelioma. Hemangioendothelioma is the most common parotid gland tumor of childhood. They seldom need excision as spontaneous regression is the norm. An asymptomatic, slow growing solid mass is the most common presentation in older children. Tenderness is associated with an infectious process. Diagnosis includes the use of Doppler ultrasound, CT-Scan, MRI and fine needle aspiration (FNA) biopsy. Salivary gland carcinoma is rare in children. Most common histological type is mucoepidermoid either as a primary neoplasm or secondary malignancy after neck irradiation. Management consists of superficial or total parotidectomy extent which is selected during the surgical procedure depending on deep gland or fascial nerve involvement. The tumor must be widely excised. Recurrence is managed with postoperative irradiation for high or intermediate grade malignancies. Rhabdomyosarcoma arising in the parotid gland area is another locally invasive aggressive tumor that presents early with swelling and symptoms of seventh nerve deficit. This tumor needs surgical excision followed by chemotherapy and irradiation.

#### References:

- 1- Zurrida S, Alasio L, Tradati N, Bartoli C, Chiesa F, Pilotti S: Fine-needle aspiration of parotid masses. Cancer 72(8):2306-11, 1993
- 2- Rogers DA, Rao BN, Bowman L, Marina N, Fleming ID, Schropp KP, Lobe TE: Primary malignancy of the salivary gland in children. J Pediatr Surg 29(1):44-7, 1994
- 3- Khadaroo RG, Walton JM, Ramsay JA, Hicks MJ, Archibald SD: Mucoepidermoid carcinoma of the parotid gland: a rare presentation in a young child. J Pediatr Surg 33(6):893-5, 1998
- 4- Salomao DR, Sigman JD, Greenebaum E, Cohen MB: Rhabdomyosarcoma presenting as a parotid gland mass in pediatric patients: fine-needle aspiration biopsy findings. Cancer 84(4):245-51, 1998
- 5- Roebuck DJ, Ahuja AT: Hemangioendothelioma of the parotid gland in infants: sonography and correlative MR imaging. AJNR Am J Neuroradiol 21(1):219-23, 2000
- 6- Orvidas LJ, Kasperbauer JL, Lewis JE, Olsen KD, Lesnick TG: Pediatric parotid masses. Arch Otolaryngol Head Neck Surg 126(2):177-84, 2000

# **Perineal Hemangioma**

Hemangiomas continue to be the most common benign tumor in infants. Perineal hemangiomas involving the scrotum, perianal region and rectum have been sporadically described. Lesions of the anogenital area have a strong predilection for females. The

clinical presentation can start with an undiagnosed non-healing ulcer, a pale macule, erythematous papule, bruise or port-wine stain in the perineal region. Recurrent perianal blood loss can be caused by a rectal hemangioma. Local factors such as abrasion or maceration plays a potentiating role in ulcer development. MRI helps determine the extension of the hemangioma toward the pelvis and surrounding tissues. Though most hemangiomas spontaneously involute over a period of years, those located in the perineal and ano-rectal region are troublesome lesions causing repeated ulcerations and subsequent pain. The subcutaneous perineal hemangioma can be managed conservatively, with systemic steroids or using alpha interferon therapy depending on the symptomatology of the child. Diffuse cavernous hemangioma of the colon, rectum and anus can be managed with initial temporary colostomy followed by modified endorectal pull-through.

#### References:

- 1- Liang MG, Fireden IJ: Perineal and Lip Ulceration as the Presenting Manifestation of hemangioma of Infancy. Pediatrics 99(2): 256-259, 1997
- 2- Bouchard S, Yazbeck S, Lallier M: Perineal hemangioma, anorectal malformation, and genital anomaly: a new association? J Pediatr Surg 34(7):1133-5, 1999
- 3- Pohlen U, Kroesen AJ, Berger G, Buhr HJ: Diagnostics and surgical treatment strategy for rectal cavernous hemangiomas based on three case examples. Int J Colorectal Dis 14(6):300-3, 1999
- 4- Takamatsu H, Akiyama H, Noguchi H, Tahara H, Kajiya H: Endorectal pull-through operation for diffuse cavernous hemangiomatosis of the sigmoid colon, rectum and anus. Eur J Pediatr Surg 2(4):245-7, 1992
- 5- Achauer BM, Vander Kam VM: Ulcerated anogenital hemangioma of infancy. Plast Reconstr Surg 87(5):861-6, 1991

# Fetus-in-Fetu

Fetus-in-fetu is a very rare condition in which a malformed parasitic twin is found inside the body of its partner as an abdominal fetiform calcified mass. They are typically located in the retroperitoneum. Symptoms relate to the mass effect and include abdominal distension, feeding difficulty, vomiting and dyspnea. It represents an abortive attempt of identical twinning where one fetus (the parasite) is drawn into the abdominal cavity of the host fetus (the autosite) in early intrauterine life and is attached retroperitoneally, with the blood supply to the former supplied by the host superior mesenteric vessels. There exist much controversy in the literature whether a fetus-in-fetu is a well-formed teratoma (tumor composed of the three germ cell layers) or not. To be coined fetus-in-fetu the mass must demonstrate true organogenesis and an axial skeleton separating them from teratomas, which never undergo organogenesis. Nonvisualization of the vertebral axis on radiography or on CT Scan does not exclude the diagnosis of fetus-in-fetu as it can be seen by the pathologist. Chromosomal analysis of the fetus shows normal chromosomes identical to the host. Management consists of complete surgical resection in as much as malignant recurrence has been reported.

#### References:

1- Eng HL, Chuang JH, Lee TY, Chen WJ: Fetus in fetu: a case report and review of the literature. J Pediatr Surg 24(3):296-9, 1989

- 2- Hopkins KL, Dickson PK, Ball TI, Ricketts RR, O'Shea PA, Abramowsky CR: Fetus-in-fetu with malignant recurrence. J Pediatr Surg 32(10):1476-9, 1997
- 3- Hoeffel CC, Nguyen KQ, Phan HT, Truong NH, Nguyen TS, Tran TT, Fornes P: Fetus in fetu: a case report and literature review. Pediatrics 105(6):1335-44, 2002
- 4- Mills P, Bornick PW, Morales WJ, Allen M, Gilbert-Barness E, Johnson PK, Quintero R: Ultrasound prenatal diagnosis of fetus in fetu. Ultrasound Obstet Gynecol 18(1):69-71, 2001
- 5- Federici S, Prestipino M, Domenichelli V, Antonellini C, Sciutti R, Domini R: Fetus in fetu: report of an additional, well-developed case. Pediatr Surg Int 17(5-6):483-5, 2001

### \* Edited by: Humberto Lugo-Vicente, MD, FACS, FAAP

Professor / Associate 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 1993-2002 ISSN 1089-7739