



# **PEDIATRIC SURGERY Update** ©

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### **Foveolar Hyperplasia**

Idiopathic focal foveolar hyperplasia (FH) is a rare cause of gastric outlet obstruction in infants. These non-neoplastic polyps are usually found in adults. Children affected with FH presents early in life with persistent postprandial vomiting and failure to thrive, signs which are undistinguishable from hypertrophied pyloric stenosis. The characteristic histology of faveolar hyperplasia consists of enlarged, tortuous and dilated gastric pits (foveolas), producing a redundant mucosa that causes partial obstruction of the antro-pyloric area. Associated is submucosal eosinophilic inflammatory reaction suggesting an allergic component. Some reports have suggested cows' milk protein allergy as a key factor. In general, the etiology of FH is unknown. A few reports have found that foveolar hyperplasia develops after prostaglandin E infusion, an effect which is dose related, and resolves with cessation of the drug. Ultrasound of the antro-pyloric canal will demonstrate a filling defect, polypoidal, redundant lesion with central echogenic folds without muscular wall thickening. UGIS shows a longitudinal filling defect. Upper endoscopy reveals polypoidal mucosal hypertrophy originating from antrum and extending into the duodenal cap. Biopsy establishes the diagnosis. Management of symptomatic idiopathic focal foveolar hyperplasia consists of surgical excision of the involved redundant mucosa with pyloroplasty or pyloromyotomy.

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### **Congenital Extremity Gangrene**

Being born with arterial or venous occlusion of a distal extremity and gangrene is a rare event of obscure etiology in newborns. Arterial thrombosis, emboli, trauma, congenital heart disease, sepsis, dehydration, coagulopathies, venous occlusion from direct pressure, constrictive bands, compression by the encircling umbilical cord, and venipuncture are all

possible causes which should be considered in the differential diagnosis of congenital gangrenous extremity. Unfortunately in most cases the etiology cannot be established. When gangrene is established at birth surgical amputation, autoamputation, or some loss of function is usual. Management is in general supportive, allowing the ischemic area to demarcate and slough. Range-of-motion exercises and splinting to avoid contracture are helpful in the rehabilitative phase. In very rare occasions early aggressive systemic thrombolytic therapy (urokinase) followed by serial soft-tissue debridement and ultimate skin coverage through cultured epithelial autografts have been reported with good limb salvage results. Peripheral Ischaemic insults presenting at birth may be part of a wider spectrum of disorders, both prenatal and perinatal, attributable to occlusive vascular disruption.

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## **Parotid Hemangioma**

Parotid hemangioma (or hemangioendothelioma) is by far the most common tumor of the parotid gland seen in infants and children. Initially the infant presents with non-tender swelling of the cheek during the first weeks of life. The swelling is generally confined to the superficial lobe of the parotid gland, but it can involve the masseter muscle. With capillary and bluish involvement of the skin and subcutaneous tissue the diagnosis is easier to establish. MRI is the investigation of choice because of picture quality, definition of soft tissues and lack of exposure to ionizing radiation. MRI allows a definite diagnosis to be made without any invasive procedure being required. When in doubt a fine-needle biopsy will establish the histologic nature of the mass. US with Doppler imaging (lobular internal structure, fine echogenic internal septations, mildly lobulated contour and extremely high vascularity), and labeled red cell scintigraphy (well-defined area of intense activity) can also sustain the diagnosis of parotid hemangioma. Management is conservative since most lesions involute spontaneously. During involution ulceration and calcification can occur. Medical management (intralesional injection of steroids, systemic steroids or interferon) is given when the tumor is large, deforming, ulcerated, or involves nearby structures with functional consequences. The overall response rate is very high.

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