



# **PEDIATRIC SURGERY *Update* ©**

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### **Umbilical Granuloma**

Persistent umbilical swelling and discharge during the neonatal period is of serious concern to both parents and physicians. Among umbilical swelling, the umbilical granuloma is one of the most commonly seen condition in the pediatric practice. The normal granuloma, a common inflammatory reaction to the resolving umbilical stump of a newborn should disappear by the 2nd to 3rd week of life after proper hygiene. Persistent beyond this time will need some type of therapy. Umbilical granuloma is managed with 75% Sylver nitrate stick application. Sylver nitrate is not innocuous and when apply liberally can cause a minor burn of the periumbilical skin area of the baby. Caution must be observed while applying Sylver nitrate, careful drying the umbilical exudate to prevent periumbilical spillage, and discussion with parent that burns may occur but apparently are not serious. Whenever Sylver nitrate therapy fails and discharge persists, or contains urine or fecal material, the physician should suspect that the child has either a patent urachus or omphalomesenteric duct remnant as both conditions resemble the common umbilical granuloma seen in general practice. Ultrasound studies of the periumbilical area looking for a cyst, masses or fixed bowel loops can help determine the presence of such congenital remnants. Management of the persistent umbilical granuloma is surgical with double ligature, cauterization of the base or formal umbilical exploration.

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### **Multicystic Dysplastic Kidneys**

Multicystic dysplastic kidneys (MCDK) is a severe form of dysplasia without any regular lobar development or normal calyceal drainage system. The kidney stroma and size of the cysts can vary. The bigger the cysts the less stroma. Most cases are unilateral; left side affected more often. Bilateral disease is usually incompatible with life. MCDK is the most common form of renal cystic disease and most common entity responsible for an abdominal mass in infants. Most MCDK are associated with atresia of part or all of the ipsilateral ureter. Ultrasound is diagnostic of MCDK. Renal scan studies (DMSA) will not

concentrate the contrast material. Retrograde studies will show an atretic ureter. The differential diagnosis consists of cystic mesoblastic nephroma which will show some function on excretory urography or nuclear studies different from MCDK. MCDK does not have a premalignant potential. The incidence of short term complications of MCDK is very low. Regional pain caused by the expanding kidney mass is probably the most absolute indication for nephrectomy in MCDK. Relative indications consist of reversible hypertension, symptomatic urinary tract infection and increasing kidney size. Almost 20% of these lesions will regress within the first three years of life of the child.

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## **Intractable Constipation**

Constipation is a common abdominal symptom in childhood. In the majority of cases no cause is identified and the condition is labeled as idiopathic. More than 90% of children with idiopathic constipation respond to medical treatment (bulk diet, laxatives and enemas). Less than 10% develops intractable constipation. Intractable constipation, not associated to Hirschsprung's disease, neuromuscular disease or repaired anorectal malformations, that fails to respond to aggressive medical management is one of the most difficult conditions to manage in children. Children have duration of symptoms for a period beyond five years. Intractable constipation produces progressive fecal retention, fecal incontinence, distension of the rectum and sigmoid colon with loss of rectal sensory and motor function. Encopresis ensues when fecal soiling results from the retained fecal material. Idiopathic constipation is associated with a thickened internal anal sphincter. Colonic manometry helps differentiate causes of intractable constipation in childhood showing the length of the abnormal colonic involved segment. Surgical management for intractable constipation can consist of internal myectomy, placement of cecostomy or left-colon tubes for antegrade enema cleansing, or resection of the diseased colonic segment when there is severe stasis and luminal dilatation. Outcomes have thrown mixed results.

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

Professor /Academic Director of Pediatric Surgery, University of Puerto Rico - School of Medicine,  
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>

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