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Neonatal Liver Hemorrhage

Hemorrhage from the liver in the neonatal period is a very serious and lethal injury. Neonatal liver bleeding can occur spontaneously during a surgical procedure, the result of birth trauma, associated with sepsis, coagulopathy or an acquired liver malformation. Breech delivery can be associated with spontaneous blunt hemorrhage into the liver, adrenals, kidney or spleen. Symptoms of abdominal distension, a contiguous mass effect in the right upper quadrant, anemia and shock appear 48 hours after the event. Blunt hepatic hemorrhage has also been reported within 24 hours of birth in babies carrying a congenital cavernous subcapsular liver hemangioma due to the tensile strength of this part of the liver. Performing surgery in very small premature babies with necrotizing enterocolitis can be associated with intraoperative spontaneous bleeding from the liver. In these cases severe liver hemorrhage could be stabilized by early liver tamponade using absorbable thrombostatic sponges and polyglactin mesh, argon beam coagulation, thrombin and fibrin glue application or topical hemostatic agents. Other times recombinant factor VIIa has been needed to manage such events. Significant increased fluid requirements and persistent hypotension are ominous findings in the preoperative period and important predictors of the development of liver hemorrhage in necrotizing enterocolitis. Since bleeding occurs near the falciform ligament it is believed that it acts as a fulcrum on which the expanding liver would tear.

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Solitary Rectal Ulcer Syndrome

Solitary rectal ulcer syndrome (SRUS) is a very rare cause of rectal bleeding in children.

It is more commonly found in adults. Often goes unrecognized or misdiagnosed. In common with adults there is often a long duration of symptoms prior to diagnosis. The etiology of SRUS is multifactorial. Significant factors include ischemia with trauma due to dysfunctional defecation associated with anterior rectal prolapse. Some form of rectal prolapse is commonly found during videoproctography. Clinically the child manifests with bright rectal bleeding, constipation, mucous discharge, tenesmus, perineal and lower abdominal pain. Most cases are males. Endoscopic findings include ulcerated, polypoid, or plaque-like lesions characteristically found in the anterior rectal wall. Histology shows fibrous obliteration of the lamina propria with disorientation of smooth muscle fibers and hypertrophy of the muscularis mucosa with distorted crypts. The diagnosis is established using endoscopic biopsy, proctography and anorectal manometry. Most children respond well to conservative therapy. Initial management of SRUS consists of bulk laxatives, high fiber diet, biofeedback, behavior modification or Argon plasma coagulation. Surgical management is reserved for intractable cases and consists of local excisional procedures and/or rectopexy.

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Granulomatous Appendicitis

Granulomatous inflammation of the appendix is a very rare form of appendicitis in children and adults. It is usually associated with a secondary systemic disease process such as Crohn's disease, foreign body reaction, tuberculosis, sarcoidosis, schistosomiasis, or Yersinia pseudotuberculosis. With absence of the above disorders it is termed primary or idiopathic granulomatous appendicitis. Patients' presented with pain in the right lower quadrant of the abdomen frequently associated with a mass and a protracted preoperative course. Most children undergo primary appendectomy. Prominent histologic features included epithelioid granulomas with lymphoid cuffing, central necrosis, transmural inflammation with lymphoid aggregates, mucosal ulceration, and cryptitis. Few children develop Crohn's later in life and postoperative fistulas occur very infrequently. Delayed or interval appendectomy specimens often have a characteristic inflammatory pattern that includes granulomas, xanthogranulomatous inflammation, mural fibrosis/thickening, and transmural chronic inflammation, changes

that may be misinterpreted as Crohn disease. The prognosis of idiopathic granulomatous appendicitis is favorable.

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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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