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Periappendiceal Mass

In the event of right lower abdominal pain caused by appendicitis, almost 15% of children will present with a right lower quadrant mass effect. The mass can be a phlegmon with a central inflamed appendix which appears after four to five days from the onset of abdominal pain accounting for 50% of appendiceal masses. Almost 20% of these masses will contain a frank abscess cavity. Periappendiceal masses are the result of perforated appendicitis. Due to the increase use of abdominal CT in the setting of abdominal pain more cases of periappendiceal phlegmon/abscess are discovered with this diagnostic modality. CT is reliable in distinguishing periappendiceal abscesses from phegmons and its use can be extended into percutaneously draining the abscess cavity. US with color Doppler demonstrates a hyperemic periappendiceal or pelvic fluid collection and periappendiceal soft-tissue hyperemia. Management of a periappendiceal abscess depends on the clinical condition of the child. Nontoxic patient with mild peritoneal signs warrants non-operative management with intravenous fluids and antibiotics until the acute process subsides. Rising heart rate, continued spiking fever, worsening peritoneal signs, intestinal obstruction or enlargement of the mass may require urgent surgery. Patients undergoing initial nonoperative management have a lower rate of complications. Six to eight weeks after resolution of the inflammatory process interval appendectomy is recommended to avoid recurrent abdominal pain. Laparoscopic appendectomy can be performed safely and effectively in such interval cases.

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Adhesions

Postoperative adhesions are the main cause of acute and chronic mechanical

bowel obstruction in children and adults. Adhesive small bowel obstruction (SBO) presents with bilious vomiting, abdominal distension, colicky abdominal pain and obstipation. Simple abdominal films demonstrate distended bowel loops with air-fluid levels. More than 80% of SBO develops within two years of the prior operations. Appendectomy and subtotal colectomy are the most common prior operations. The risk of developing an adhesive SBO is greater when there is more than one prior peritoneal procedure, and when there is established peritonitis. Initial therapy includes nasogastric decompression, hydration and serial abdominal examination. Most cases of adhesive SBO that will resolve, do so within 48 hours of admission. Failed conservative therapy or worsening abdominal signs warrant surgery. Signs heralding bowel strangulation includes spiking fever, pinpoint abdominal tenderness and leukocytosis. Delaying lysis of adhesion and entering the GI tract during surgery is associated with increased morbidity. Use of Gastrografin meal in adhesive small bowel obstruction is safe and reduces the need for surgery when conservative treatment fails

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Retractile Testis

Retractile testes are very common in school age boys. A retractile testis is a testis that has completed the normal descent but is not in its normal scrotal position due to a hyperactive cremasteric reflex. The reflex pertains to the genitofemoral nerve at L1-L2 level. Retractile testes can be manually placed in the scrotum, but the reflex triggered by fear, cold, stimulation of the upper inner aspect of the thigh, or anxiety causes the testis to ascend. This reflex is blunted by testosterone during puberty. On the contrary, true undescended testis cannot be brought manually to the scrotum. Mean average spermatogonial number and Sertoli cell index are significantly reduced in undescended testes. Human chorionic gonadotropin can assist in the diagnosis of retractile testes by stimulating descend in most cases. Children with

retractile testes does not need immediate surgery (orchidopexy), appear to be at highest risk for acquired cryptorchidism and should be followed yearly to detect changes in testicular volume which should prompt orchidopexy. Most children with retractile testes have spontaneous descent after puberty.

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