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Appendicitis

Appendicitis is still the most common condition requiring emergent abdominal surgery in childhood caused by obstruction of the appendiceal lumen, most commonly a fecalith. The obstruction distends the lumen leading to arterial occlusion and infarction. Initially visceral periumbilical pain occurs carried by afferent sympathetic fibers to T10 dermatome. With progression of inflammation the pain shifts to the right lower quadrant. Anorexia, nausea and vomiting follow. Point tenderness in the right lower quadrant (or the persistence of right lower quadrant pain) is the most reliable physical finding. Fever is usually present. Laboratory findings are an elevated white blood cell count in most instances. Very high WBC's > 18,000 may indicate perforation. Radiographic findings may include ileus, appendicolith (pathognomonic finding), splinting and abdominal wall edema. Ultrasound and CT-scan have improved the diagnostic accuracy in children with suspected appendicitis. Appendicitis is managed with appendectomy, open (right lower either quadrant horizontal muscle splitting incision) or laparoscopic. Preoperative antibiotics and hydration are mandatory in all cases of suspected appendicitis. All wounds are closed primarily without drains. Complicated appendicitis (gangrenous and perforated) receives postoperative antibiotics until the child clinical condition improves, fever subsides, ileus are gone and the WBC count normalizes. Postoperative persistent fever, ileus or leukocytosis mandates an imaging search (usually CT-Scan) for intraabdominal collections. These collections can be managed with percutaneous drainage and continued antibiotherapy.

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Acute Cholecystitis

Acute cholecystitis in children is a rare disease entity associated with hemolytic diseases (sickle-cell disease, hereditary spherocytosis and thalassemia), severe intercurrent illness and congenital anomalies. Children presents with fever, nausea, vomiting, acute abdominal right upper quadrant pain (positive Murphy' sign from a distended, tender gallbladder) and leukocytosis. In a few patient a mass may be present in the right upper quadrant. With jaundice the suspicion of common bile ducts stones should be raised. Chronic cholecystitis with cholelithiasis is a more common presentation in children than acute cholecystitis. Diagnosis can be establish with ultrasound (thickened gallbladder wall) and use of HIDA bilioenteric studies to asses patency of the cystic duct (procedure of choice). Initial management consist of hydration and antibiotics to cool down the inflammatory process. This is followed by early laparoscopic cholecystectomy except in patients presenting with a gallbladder phlegmon later than seven days after the onset of the attack. Laparoscopic cholecystectomy for acute cholecystitis in patients with sickle cell disease has also been found to be safe and recommended in experienced hands with adequate preoperative preparation of the child.

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Surgical Ethics

Surgical ethics is based on recognition of the rights of patients who require care by a surgeon. The four basic principles of ethics that we will consider in a series of future reviews are beneficence, no-maleficence, respect for autonomy and justice in what pertains the practice of surgery and medicine. We must recognize that patients have seven basic rights: 1- the right not to be killed intentionally or negligently, 2- not to be harmed by intent or negligence and 3- not to be deceived by the surgeon. Patients also have the right to: 4- be adequately informed about the risks and benefit of surgery, 5- be treated by a knowledgeable competent practitioner, 6- to have his or her health and well-being more highly valued than the surgeon's own economic interest, and to 7- decide whether to accept treatment under the conditions described. Surgeons must act as moral fiduciary of

the patient always avoiding them to come into self-interest conflicts. Honesty is the general fiduciary commitment to protect and promote the interest of the patient if surgical ethics is to guide the clinical judgement and practice of surgeons in a comprehensive way.

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