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Dumping Syndrome

Dumping syndrome (DS) refers to a combination of vasomotor symptoms that occurs while the patient is eating (especially carbohydrates) and includes: faintness, weakness, dizziness, tachycardia, diaphoresis and the need to assume a reclining position. The child may develop early satiety, nausea, bloating and cramps with explosive bowel movement. DS is the physiologic response (release of various humoral agents from the gut: bradykinins, serotonins, enteroglucagon along with extracellular fluid shifts) to an altered movement of large amounts of hyperosmotic gastric chyme into the proximal small bowel. DS develops after 1- bypass (gastrojejunostomy), ablation (pyloroplasty) or alteration (antireflux surgery) of the pyloric sphincter mechanism, 2- removal of part of the stomach, or 3- malplacement of a feeding gastrostomy tube. Fundoplication is the most common cause of DS in children. The diagnosis is made by demonstrating an abnormal response to an orally administered glucose challenge. Radionuclide studies confirm the presence of rapid gastric emptying. Cows' milk formula and meals made with cooked starch provoke dumping symptoms, hyperglycemia and hyperinsulinemia. Diet modification (frequent small meals high in protein, fat emulsions and uncooked corn starch - lactose free formulas) is the best useful medical therapy. In other words not overeating, reducing carbohydrates in food, abstaining from dairy products and eliminating fluids with meals. Pectin 5-15 g/day divided into six doses can be added to the diet. Late DS refers to hypoglycemia that result from innapropiate timing of insulin release.

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Postoperative Intussusception

Intussusception can occur a few days after a surgical procedure in children. The diagnosis is delayed because symptoms mimic common postoperative complaints. Suspicion should be raised when an apparently favorable postoperative course is suddenly complicated by

intestinal obstruction. Postoperative intussusception (POI) is generally characterized by intermittent abdominal pain, irritability and vomiting. Initial symptoms included bilious vomiting or increased nasogastric drainage (after initial return of gut function). An abdominal mass is not usually palpable, and few children have bloody stools. Plain abdominal radiographs revealed dilated loops of bowel and multiple air-fluid levels. Ultrasound can identify a target lesion characteristic of intussusception. POI can follow Nissen fundoplication, tumor resection, small bowel procedure, pull-through procedures, nephrectomy and even gastrocystoplasty. Most are ileo-ileal or jejuno-ileal and will need surgical reduction. Diagnostic delay results in ischemic bowel needing resection.

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Appendicolith

Appendicitis is usually diagnosed from signs, symptoms, results of simple laboratory tests a/o simple abdominal films. After simple abdominal films an appendicolith (coprolith, fecalith, retained barium or foreign body) is sometimes found in the symptomatic child with right lower quadrant pain or less commonly in an asymptomatic situation. In the child WITH SYMPTOMS of low abdominal pain this finding should be followed by appendectomy. Appendiceal fecaliths and calculi play a role in the pathogenesis of appendicitis and are associated with perforation and gangrene. In the ASYMPTOMATIC situation a prophylactic appendectomy is NOT justified when an appendicolith, retained barium or another foreign body within the lumen of the appendix is identified. A normal appendix will expel the appendicolith or barium in a variable period. The parents should be informed that appendicitis may develop and that the child should seek a physician if abdominal symptoms develop. A note should appear in the record explaining this conversation.

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