

ADULT INTUSSUSCEPTION

Introduction:

1. Occurs when a proximal segment of bowel (intussusceptum) telescopes into the lumen of the adjacent distal segment (intussusciens). This leads to mesenteric trapping and ischemia
2. Though common in the pediatric population, a rare entity in adults (0.003% to 0.02% of all hospital admissions, 1% of all SBO and 5% of all intussusceptions)
3. In contrast to children, a demonstrable etiology is present in 70 to 90%; in 20% to 50% there is a malignant etiology Trauma and post-operative etiologies have been postulated
4. Recent reports of intussusception in AIDS patients, generally ileal based: lymphoma, mycobacterial

Categories: Most commonly occurs at the junction of mobile and fixed segments

1. Enteric: confined to small intestine
2. Colonic: confined to large intestine
3. Ileocolic: prolapse of ileum through ileocecal valve
4. Ileocecal: ileocecal valve is the lead point

Diagnosis and Evaluation:

1. Sub-acute, chronic, intermittent symptoms more typical than acute obstructive symptoms
2. Hx of prior episodes of intermittent abdominal pain and vomiting
3. Crampy abdominal pain (78%), N/V (78%), distension (45%), tenderness (60%)
4. Correct Pre-op diagnosis made only in 32% of patients
5. Incorrect pre-operative dx: acute cholecystitis, abdominal mass, GI bleed
6. CT is most useful in making the diagnosis. "Target Mass"
7. U/S: "target and doughnut" signs on transverse view and "pseudokidney" sign on longitudinal view. Presence of air in the bowel limits U/S evaluation
8. Barium studies (cup shaped filling defect with an additional filling defect representing tumor)
9. UGI endoscopy or colonoscopy might reveal intussusception

Management: Unlike pediatric intussusception, surgery is required in most cases

To Reduce or not to Reduce?

1. Resection without intra-operative reduction has been advocated by many authors
2. Enteric intussusception in post-operative obstruction **Reduction without resection if bowel viable**
 - If the bowel is viable, can be managed with intra-operative reduction as the lead point is believed to be either a suture line, previous enterotomy or adhesions
3. Benign enteric lesions **Resection without reduction preferred**
 - Resection without reduction decreases recurrence, avoids spillage and allows usage of uninjured bowel for anastomosis
4. All colonic lesions **Resection without reduction in all cases**
 - Colonic lesions: 50% are malignant and there is no way to distinguish benign vs. malignant lesions therefore a formal resection along lymphatic drainage should be performed

Prognosis: Azar et al. reported 16 deaths of the 58 studied patients

	Number of deaths	% of deaths	Avg. time postoperatively
Benign Enteric	2	8.7	17.5 days
Malignant Enteric	11	52.4	9 mo
Benign Colonic	2	12.5	1 yr
Malignant Colonic	2	33.3	9 yr

References:

Azar T, Berger DL. Adult intussusception. *Ann Surg.* 1997 Aug;226(2):134-8.

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Image of the month. Acute intussusception. *Arch Surg.* 2003 Jun;138(6):681-2. Takeuchi K, Tsuzuki Y, Ando T, Sekihara M, Hara T, Kori T, Kuwano H. The diagnosis and treatment of adult intussusception. *J Clin Gastroenterol.* 2003 Jan;36(1):18-21.

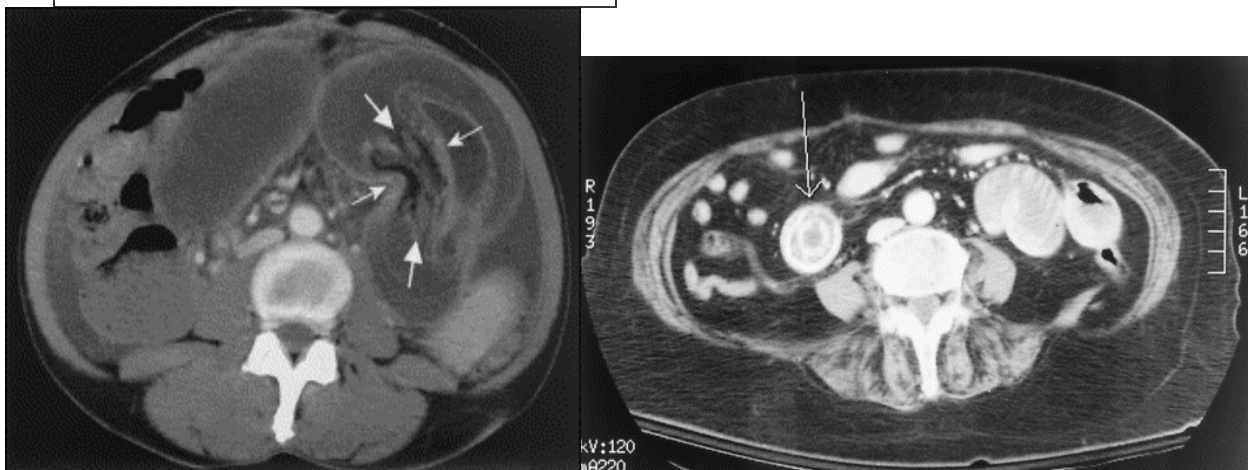
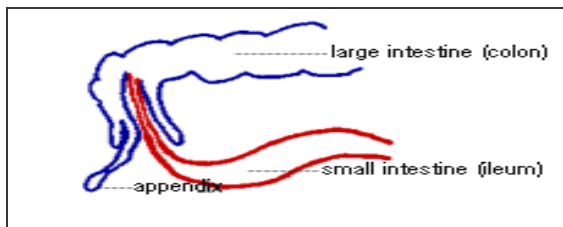


Figure 1: Abdominal computed tomography scan revealing the pathognomonic bowel-within-bowel configuration with mesenteric fat and vessels (**large arrows**) between the small bowel wall (**small arrows**). Adult intussusception. *Am J Surg.* 2003 Jul;186(1):75-6

Figure 2: An elderly patient with intussusception. *J Emerg Med.* 2003 Feb;24(2):221-2.

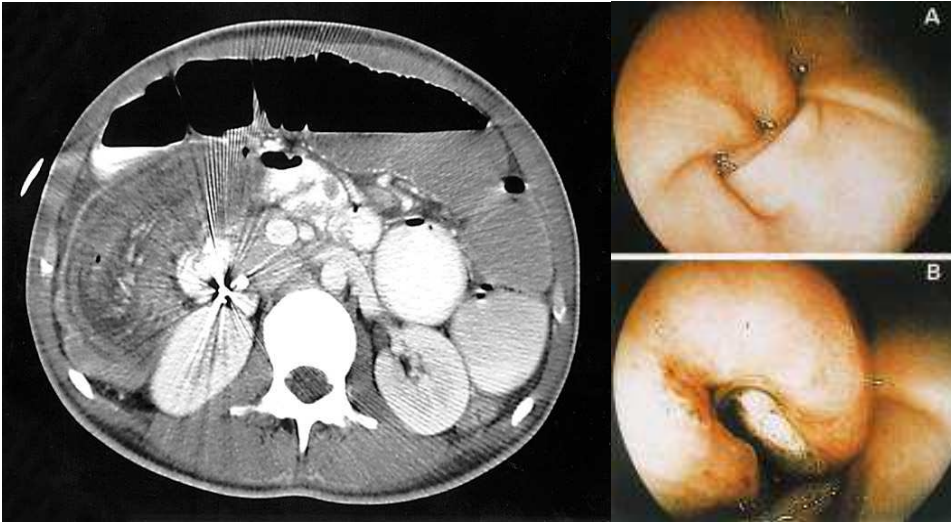


Figure 3 Computed tomographic scan of the abdomen, showing "bowel within bowel," typical of intussusception. Image of the Month *Arch Surg.* 2003;138:682.

Gastroduodenal Intussusception secondary gastric leiomyoma

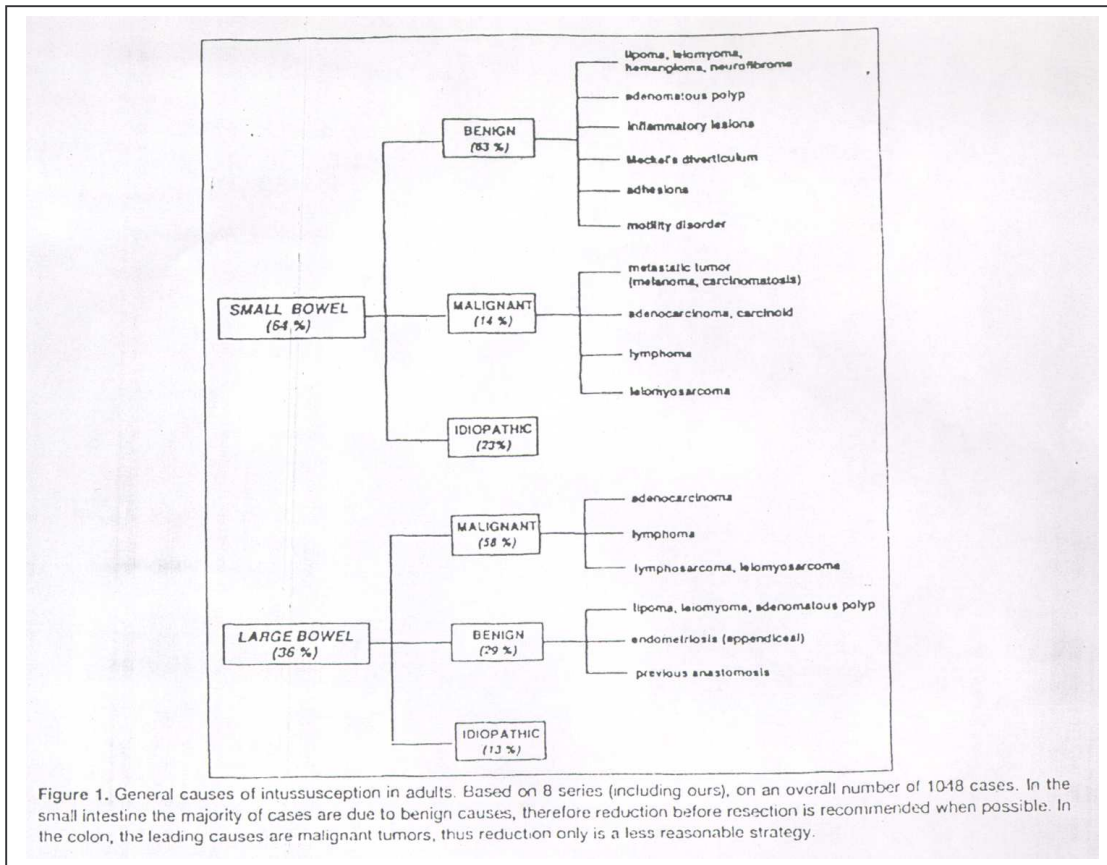
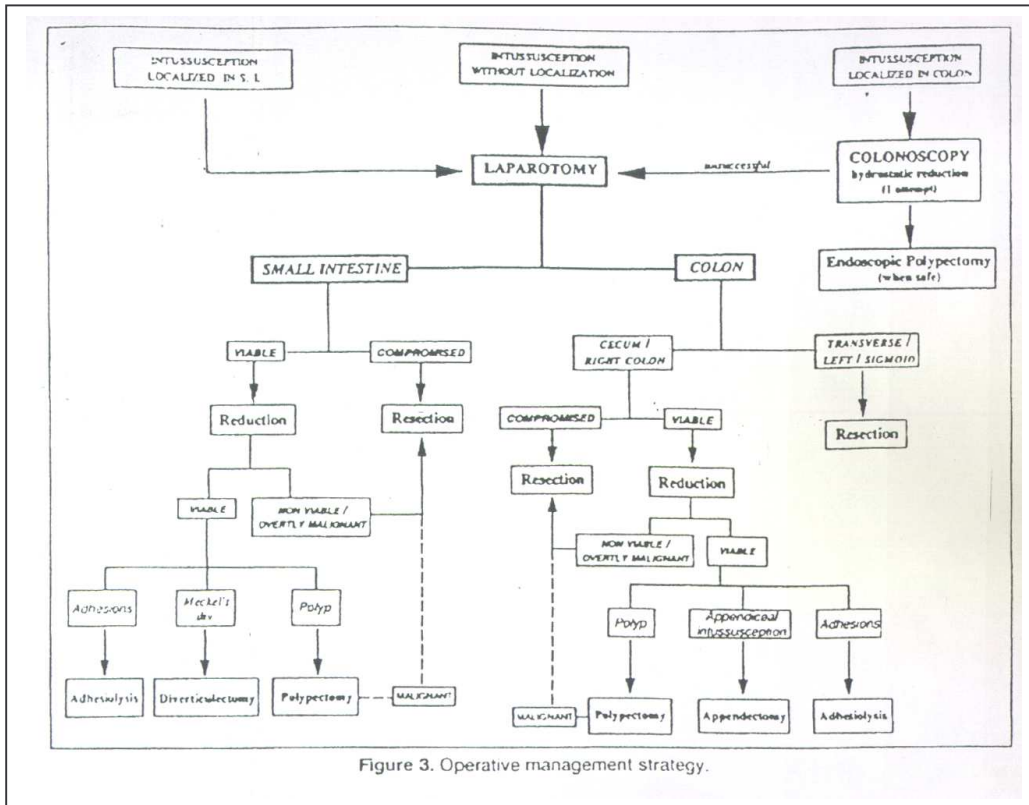


Figure 1. General causes of intussusception in adults. Based on 8 series (including ours), on an overall number of 1048 cases. In the small intestine the majority of cases are due to benign causes, therefore reduction before resection is recommended when possible. In the colon, the leading causes are malignant tumors, thus reduction only is a less reasonable strategy.



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