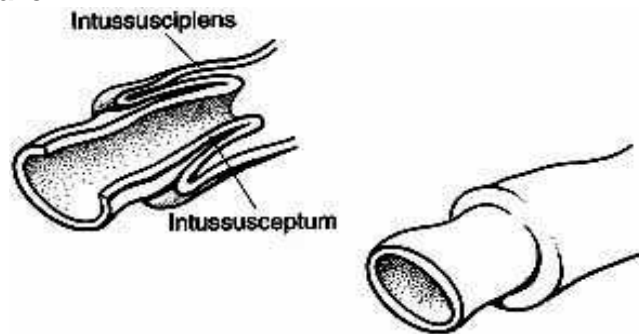


Intussusception

1. Definition

- a. Telescoping (prolapse) of a portion of the intestine within another immediately adjacent portion of intestine. This decreases the supply of blood to the affected part of the intestine, and frequently leads to intestinal obstruction. The pressure created by the two walls of the intestine pressing together causes inflammation, swelling, and reduces the blood flow. Death of bowel tissue can occur, with significant bleeding, perforation, abdominal infection, and shock occurring very rapidly.
- b. Picture:



2. Pathophysiology

- a. Most commonly occurs at the terminal ileum.
- b. The telescoping proximal portion of bowel invaginates into the adjacent distal bowel.
- c. The mesentery of the intussusceptum is compressed, and the ensuing swelling of the bowel wall quickly leads to obstruction.
- d. Venous engorgement and ischemia of the intestinal mucosa cause bleeding and an outpouring of mucous, which results in the classic description of red “currant jelly” stool.
- e. Most cases (90%) are idiopathic.

3. Mortality/Morbidity

- a. Most patients recover if treated within 24 hours.
- b. Mortality with treatment is 1-3%.
- c. If left untreated, this condition is fatal in 2-5 days.
- d. Recurrence is observed in 3-11% of cases. Most recurrences involve intussusceptions that were reduced with contrast enema.

4. Age

- a. Intussusception is most common in infants aged 3-12 months, with an average age of 7-8 months.
- b. Two thirds of the cases occur before the patient's first birthday.

- c. Intussusception occurrence is rare in persons younger than 3 months, and it becomes less common in persons older than 36 months.

5. History

- a. The typical presentation is a previously healthy infant boy aged 6-12 months with sudden onset of colicky abdominal pain with vomiting.
- b. Symptoms begin with sudden loud crying in an infant, with the baby drawing the knees up to the chest while crying; abdominal cramping causes this reaction. The pain and crying is intermittent, but recurs frequently, and increases in intensity and duration.
- c. Paroxysms of pain occur 10-20 minutes apart.
- d. Initially, loose or watery stools are present concurrent with vomiting and, within 12-24 hours, blood or mucous is passed rectally (red "currant jelly" stool).
- e. Early in the course, the patient appears completely well between the episodes of abdominal pain.
- f. Lethargy may dominate the initial presentation. However, lethargy usually occurs later in the process.
- g. The classic triad of colicky abdominal pain, vomiting, and red currant jelly stools occurs in only 21% of cases.

6. Physical

- a. Usually, the abdomen is soft and non-tender early, but it eventually becomes distended and tender.
- b. A vertically oriented mass may be palpable in the right upper quadrant.
- c. Currant jelly stools are observed in only 50% of cases. Most patients (75%) without obviously bloody stools have stools that test positive for blood.
- d. Fever is a late finding and is suggestive of enteric sepsis.

7. Causes

- a. Most cases are idiopathic. In neonates and in patients older than 3 years, a mechanical lead point usually can be found.

8. Predisposing factors

- a. Recent upper respiratory illness, Recent diarrheal illness, Henoch-Schönlein purpura, Cystic fibrosis, Chronic indwelling GI tubes.

9. Processes that result in a mechanical lead point

- a. Meckel diverticulum, Intestinal polyp (eg, Peutz-Jeghers syndrome, familial polyposis coli, juvenile polyposis), Intestinal lymphosarcoma, Blunt abdominal trauma with intestinal or mesenteric hematomas, Hemangioma, Foreign body, Henoch-Schönlein purpura (small bowel hematomas cause small bowel intussusception).

10. Other Problems to be Considered

- a. Adhesive band, Volvulus, Meckel diverticulum, Any process causing abdominal pain or GI bleeding, Mesenteric adenitis.

11. Lab Studies

- a. Perform lab studies as needed for the febrile, dehydrated, or unstable patient.

12. Imaging Studies

- a. If intussusception is strongly suspected, perform a contrast enema without delay.
- b. This is contraindicated in patients with an obvious surgical abdomen (e.g., signs of peritonitis or perforation) and in unstable patients.
- c. Plain abdominal x-ray findings may be normal early in the disease or may show perforation, typical obstructive pattern, or soft tissue mass of the intussusception on the right side.
- d. A paucity of gas in the right upper quadrant may be present.
- e. Ultrasound has been used to diagnose intussusception.

13. Management

- a. Provide rehydration and stabilization as needed.
- b. Keep patient NPO in case of possible surgery
- c. Contrast (Hydrostatic) enema is diagnostic in approximately 95% of intussusception cases. It is therapeutic and curative in most cases with less than 24-hour duration.
- d. Oral/Nasal gastric decompression.
- e. Antibiotic therapy.
- f. Surgical intervention is necessary if not reduced.
- g. 10% may reduce spontaneously.

14. Further Inpatient Care

- a. Admission is indicated for all patients because up to 10% of those with successful radiologic reduction have a recurrence, usually in the first 24 hours.

15. Complications

- a. Intestinal hemorrhage, Necrosis and bowel perforation, Shock and Sepsis, and Recurrence.

16. Prognosis

- a. Prognosis is excellent if diagnosed and treated early; otherwise, severe complications and death may occur.