

# Ischemic Colitis

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# Ischemic Colitis

- Ischemia of the colon most often affects the elderly (90% of patients > 60 y/o ).
- Ischemic colitis is almost always nonocclusive. (emboli are the most common cause of acute mesenteric ischemia)
- Shunting of blood away from the mucosa may contribute to this condition, but the mechanism is unknown.

# Ischemic Colitis

- Most patients ischemia occurs secondary to arteriolar shunting, spasm, or poor perfusion of mucosal vessels.
- Most cases involve the splenic flexure, which is supplied by end-arteries.
- The rectum is usually spared, because its blood supply is different from the rest of the colon and less dependent on the inferior mesenteric artery .

# Types of Ischemic Colitis

- 1. Acute fulminant ischemic colitis**
- 2. Subacute ischemic colitis**

# Types of Ischemic Colitis

<b><i>Gangrenous ischemic colitis</i></b>	a <u>complete loss of arterial flow</u> causes bowel wall infarction and gangrene, which can progress to perforation, peritonitis, and death.
<b><i>Strictureing ischemic colitis</i></b>	a <u>gross impairment of the arterial supply</u> , leading to hemorrhagic infarction of the mucosa, which ulcerates, heals by fibrosis, and finally leads to stenosis.
<b><i>Transient ischemic colitis</i></b>	a <u>transient, reversible impairment</u> of the arterial supply, which causes a partial mucosal slough that heals by mucosal regeneration in a few days. <b>the most common</b>

Marx: Rosen's Emergency Medicine: Concepts and Clinical Practice, 5th ed

# Acute fulminant ischemic colitis manifestations

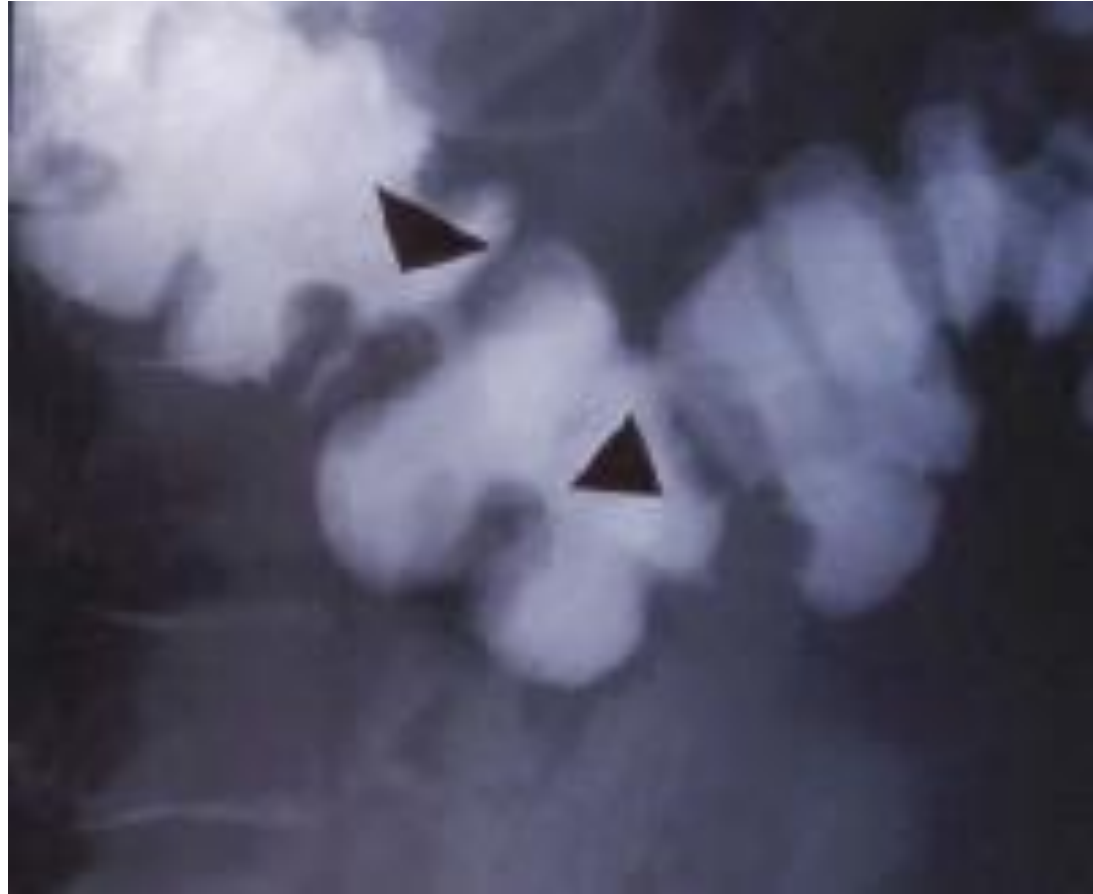
1. The onset is characteristically acute, with generalized lower abdominal pain, usually in the left lower quadrant, followed within 24 hours by bloody diarrhea or rectal bleeding .
2. Dilation of the colon and physical signs of peritonitis are seen in severe cases.
3. With the gangrenous type, both symptoms and signs progress rapidly.

# Acute fulminant ischemic colitis

## Diagnostic Strategy

- **No** specific serum markers proven in the diagnosis of intestinal ischemia.
  - **Abdominal films** may reveal **thumbprinting** from submucosal hemorrhage and edema .
- \* (barium enema is contraindicated in cases of gangrenous **ischemic colitis** because of the risk of perforation )

# thumbprinting





# Acute fulminant ischemic colitis

## Diagnostic Strategy

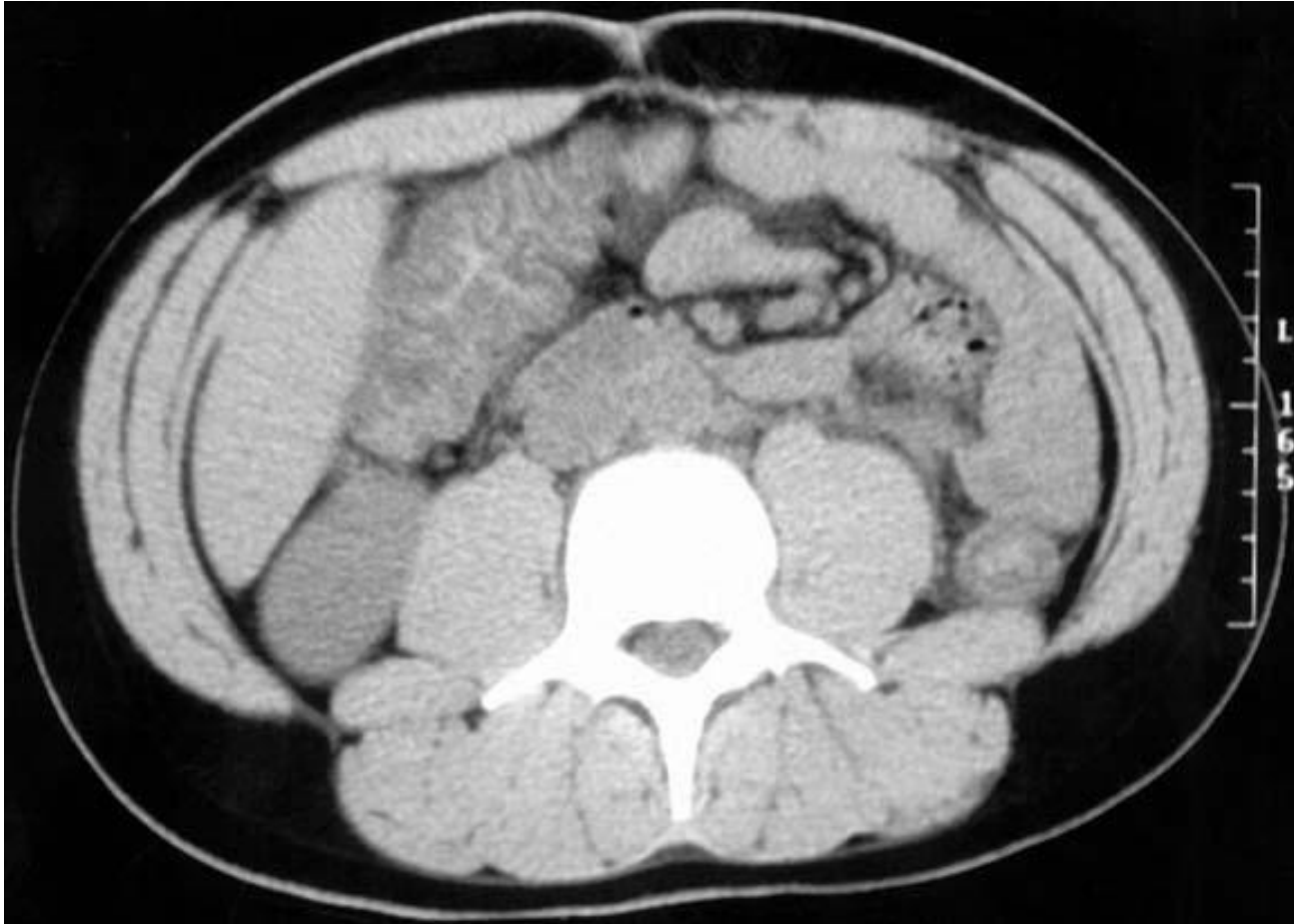
- **Sigmoidoscopy** or **colonoscopy** may detect ulcerations, friability, and bulging folds from submucosal hemorrhage.  
(Colonoscopy is preferred over sigmoidoscopy )
- The **segmental distribution** and **rectal sparing** of the disease process are suggestive but are not diagnostic.

# Acute fulminant ischemic colitis

## Diagnostic Strategy

- **Angiography** is not helpful in the management of patients with presumed ischemic colitis because a remediable occlusive lesion is very rarely found.
- **CT scan** is normal in early stages of bowel infarction, although it may show nonspecific findings such as bowel wall thickening and pneumatosis.

# CT showing left sided colonic thickening.



# Acute fulminant ischemic colitis management

- When ischemic colitis is suspected, a surgeon should be consulted.
- **Gangrenous ischemic colitis** or evidence of **perforation** requires **immediate surgery** as soon as the patient is stabilized.

# management

- **Vasopressors** should be avoided, if possible.
- **Low blood-flow states (hypotension)** should be aggressively reversed.

# Types of Ischemic Colitis

1. **Acute fulminant ischemic colitis**
2. **Subacute ischemic colitis**

# Subacute ischemic colitis manifestations

- It produces lesser degrees of pain and bleeding, often occurring over several days or weeks.
- The left colon may be involved, but the rectum is usually spared because of the collateral blood supply.

# Subacute ischemic colitis management

- **Subacute Ischemic colitis** without evidence of peritonitis or perforation is generally **self-limited** and requires only **conservative management**, including bowel rest, parenteral fluids, and antibiotics.



# Subacute ischemic colitis management

- Most cases of nonocclusive ischemic colitis resolve in 2 to 4 weeks and do not recur.
- Surgery is not required except for obstruction secondary to postischemic stricture.

# Differential Considerations

- **Ischemic colitis** often mimics **infectious colitis, inflammatory bowel disease**, or even colon carcinoma.
- Many cases of colitis in the elderly once considered to be **Crohn's disease** or **ulcerative colitis** in retrospect were really colonic ischemia.

# Conclusions

- Always consider the diagnosis of **ischemic colitis** whenever contemplating the diagnosis of inflammatory bowel disease in the elderly.
- Thumbprinting of the colon on plain abdominal radiographs suggests **ischemic colitis**.
- Surgical consultation is warranted in all cases of suspected **ischemic colitis**.