

A 75-year-old man undergoes surgical repair of a large abdominal aortic aneurysm. Postoperatively, he develops left lower quadrant abdominal pain followed by bloody diarrhea. The patient has a history of prostate cancer and received radiation therapy several years ago. His other medical problems include type 2 diabetes mellitus, hypertension, and hypercholesterolemia. He eats a low-fiber diet and recently quit smoking. Vital signs show a low-grade fever. Examination shows tenderness in the left lower quadrant, with gross blood visible on rectal examination. CT scan of the abdomen demonstrates thickening of the colon at the rectosigmoid junction. On colonoscopy, ulcerations are seen in the same area, but the colon above and below the lesions is completely normal. Which of the following is the most likely cause of his symptoms?

- ☐ A. Acute diverticulitis
- ☐ B. *Clostridium difficile* colitis
- ☐ C. Ischemic colitis
- ☐ D. Radiation proctitis
- ☐ E. Ulcerative colitis

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- ☐

A. Acute diverticulitis [10%]
- ☐

B. *Clostridium difficile* colitis [1%]
- ☒

C. Ischemic colitis [73%]
- ☐

D. Radiation proctitis [11%]
- ☐

E. Ulcerative colitis [5%]

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Explanation:

User Id:

Ischemic colitis	
Risk factors	<ul style="list-style-type: none">• Age >60• Chronic renal disease/hemodialysis• Atherosclerotic vascular disease & procedures• Myocardial infarction
Clinical features	<ul style="list-style-type: none">• Mild pain & tenderness• Hematochezia, diarrhea• Metabolic (lactic) acidosis
Diagnosis	<ul style="list-style-type: none">• CT scan: Thickened bowel wall, double halo sign, pneumatosis coli• Colonoscopy: Mucosal pallor or cyanosis, petechiae, hemorrhage

Explanation:

User Id: [REDACTED]

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Management	<ul style="list-style-type: none"> • Supportive care: Intravenous fluids, bowel rest • Intravenous antibiotics • Colon resection (bowel infarct or clinical deterioration)

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This patient with abdominal pain and bloody diarrhea following a vascular procedure has typical features of **ischemic colitis (IC)**. The pain of IC is usually moderate and lateralizes to the affected side. Repair of an **abdominal aortic aneurysm** is a common precipitating event as patients are often older and have extensive atherosclerotic vascular disease. Contributing factors may include loss of collateral circulation, manipulation of vessels with surgical instruments, prolonged aortic clamping, and **impaired blood flow** through the inferior mesenteric artery.

CT imaging in IC can show edema and air (pneumatosis) in the bowel wall.

Colonoscopy shows segments of cyanotic mucosa and hemorrhagic ulcerations, with a sharp transition from affected to unaffected mucosa. Unless the patient has perforation or bowel gangrene, most cases are managed conservatively with intravenous fluids, bowel rest, and antibiotics.

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(Choice A) Acute diverticulitis would cause left lower quadrant pain, and diverticula may cause rectal bleeding. However, diverticulitis and diverticular hemorrhage are independent events, and this patient's colonoscopy does not show diverticula.

(Choice B) *Clostridium difficile* colitis presents with abdominal pain, fever, and nonbloody, watery diarrhea. It is usually seen in patients with recent antibiotic exposure, and typical colonoscopy findings include erythema, edema, and ulceration of the bowel wall.

(Choice D) Chronic radiation proctopathy often causes bloody stools, but usually presents for the first time within the first year. Colonoscopy would show pale mucosa with ulcers, strictures, telangiectasias, and focal hemorrhage.

(Choice E) Ulcerative colitis can cause abdominal pain and bloody diarrhea; however, it would be unlikely to present for the first time at age 75. In addition, IC usually spares the rectum (due to collateral circulation) whereas ulcerative colitis would not.

Educational objective:

Ischemic colitis is a common complication of vascular surgery, as patients are often older and have extensive underlying atherosclerosis. CT imaging can show thickening of the bowel wall. Colonoscopy shows cyanotic mucosa and hemorrhagic ulcerations.

References:

1. **Ischemic colitis: surging waves of update.**

Media Exhibit

colitis

