

A 64-year-old man with a history of coronary artery disease and peripheral vascular disease undergoes coronary artery bypass surgery. His postoperative course is complicated by hypotension, which is treated successfully with intravenous fluids; however, a few hours later, he experiences abdominal pain followed by bloody diarrhea. His temperature is 37.8 C (100 F), blood pressure is 110/60 mm Hg, pulse is 110/min, and respirations are 20/min. Abdominal examination shows normal bowel sounds, with no significant guarding or focal tenderness. Laboratory results are as follows:

Complete blood count

Hemoglobin	10.8 g/dL
Platelets	140,000/mm <sup>3</sup>
Leukocytes	8,200/mm <sup>3</sup>

Serum chemistry

Sodium	136 mEq/L
Potassium	4.2 mEq/L
Blood urea nitrogen	18 mg/dL
Creatinine	0.8 mg/dL

The venous lactic acid level is elevated. An abdominal CT scan is ordered. Which of the following areas will most likely show abnormal findings?

- ☐ A. Ascending colon
- ☐ B. Hepatic flexure
- ☐ C. Jejunum
- ☐ D. Mid transverse colon
- ☐ E. Splenic flexure
- ☐ F. Terminal ileum

Submit



A 64-year-old man with a history of coronary artery disease and peripheral vascular disease undergoes coronary artery bypass surgery. His postoperative course is complicated by hypotension, which is treated successfully with intravenous fluids; however, a few hours later, he experiences abdominal pain followed by bloody diarrhea. His temperature is 37.8 C (100 F), blood pressure is 110/60 mm Hg, pulse is 110/min, and respirations are 20/min. Abdominal examination shows normal bowel sounds, with no significant guarding or focal tenderness. Laboratory results are as follows:

Complete blood count

Hemoglobin	10.8 g/dL
Platelets	140,000/mm <sup>3</sup>
Leukocytes	8,200/mm <sup>3</sup>

Serum chemistry

Sodium	136 mEq/L
Potassium	4.2 mEq/L
Blood urea nitrogen	18 mg/dL
Creatinine	0.8 mg/dL

The venous lactic acid level is elevated. An abdominal CT scan is ordered. Which of the following areas will most likely show abnormal findings?

- ☐ A. Ascending colon [2%]
- ☐ B. Hepatic flexure [4%]
- ☐ C. Jejunum [2%]
- ☐ D. Mid transverse colon [4%]
- ☒ E. Splenic flexure [87%]
- ☐ F. Terminal ileum [2%]

Proceed to Next Item

Explanation:

User Id: [redacted]



Explanation:

User Id: [REDACTED]

Ischemic colitis	
Risk factors	<ul style="list-style-type: none"><li>• Age &gt;60</li><li>• Chronic renal disease/hemodialysis</li><li>• Atherosclerotic vascular disease &amp; procedures</li><li>• Myocardial infarction</li></ul>
Clinical features	<ul style="list-style-type: none"><li>• Mild pain &amp; tenderness</li><li>• Hematochezia, diarrhea</li><li>• Metabolic (lactic) acidosis</li></ul>
Diagnosis	<ul style="list-style-type: none"><li>• <b>CT scan:</b> Thickened bowel wall, double halo sign, pneumatosis coli</li><li>• <b>Colonoscopy:</b> Mucosal pallor or cyanosis, petechia, hemorrhage</li></ul>
Management	<ul style="list-style-type: none"><li>• Supportive care: Intravenous fluids, bowel rest</li><li>• Intravenous antibiotics</li><li>• Colon resection (bowel infarct or clinical deterioration)</li></ul>

©UWorld

This patient with acute abdominal pain followed by lower gastrointestinal bleeding after an episode of **hypotension** most likely has **ischemic colitis**. Fever, nausea, elevated lactic acid, and leukocytosis may also be seen. Older patients with atherosclerotic vascular disease are at particularly high risk. The most commonly involved segments of the colon include the **splenic flexure** at the "watershed" line between the territory of the **superior and inferior mesenteric arteries** and the **rectosigmoid junction** at the watershed between the sigmoid artery and superior rectal artery.

Abdominal **CT scan with intravenous contrast** may show thickened bowel wall, although it may demonstrate only nonspecific findings. CT should be performed urgently to identify patients with ischemic colitis who need immediate surgical intervention (eg, extensive bowel damage, perforation). If colon resection is not needed, patients are treated with intravenous fluids and antibiotics and colonoscopy is performed to confirm





	<ul style="list-style-type: none"> <li>• Colonoscopy: mucosal pallor or cyanosis, petechia, hemorrhage</li> </ul>
Management	<ul style="list-style-type: none"> <li>• Supportive care: Intravenous fluids, bowel rest</li> <li>• Intravenous antibiotics</li> <li>• Colon resection (bowel infarct or clinical deterioration)</li> </ul>

©UWorld

This patient with acute abdominal pain followed by lower gastrointestinal bleeding after an episode of **hypotension** most likely has **ischemic colitis**. Fever, nausea, elevated lactic acid, and leukocytosis may also be seen. Older patients with atherosclerotic vascular disease are at particularly high risk. The most commonly involved segments of the colon include the **splenic flexure** at the "watershed" line between the territory of the **superior and inferior mesenteric arteries** and the **rectosigmoid junction** at the watershed between the sigmoid artery and superior rectal artery.

Abdominal **CT scan with intravenous contrast** may show thickened bowel wall, although it may demonstrate only nonspecific findings. CT should be performed urgently to identify patients with ischemic colitis who need immediate surgical intervention (eg, extensive bowel damage, perforation). If colon resection is not needed, patients are treated with intravenous fluids and antibiotics and colonoscopy is performed to confirm the diagnosis. Typical findings include pale mucosa with petechial bleeding, bluish hemorrhagic nodules, or cyanotic mucosa with hemorrhage.

**(Choice C)** Small bowel (mesenteric) ischemia is usually due to atheroembolic (eg, endovascular procedures) or thromboembolic (eg, atrial fibrillation) events rather than acute hypotension. Pain is typically severe but is poorly localized and out of proportion to examination findings; hematochezia may occur but is a late finding. CT would show focal or segmental bowel wall thickening and mesenteric stranding.

#### Educational objective:

Ischemic colitis is characterized by acute abdominal pain and lower gastrointestinal bleeding. It typically follows an episode of hypotension and most commonly affects arterial watershed areas at the splenic flexure and rectosigmoid junction. CT scan may show a thickened bowel wall. Colonoscopy can confirm the diagnosis.

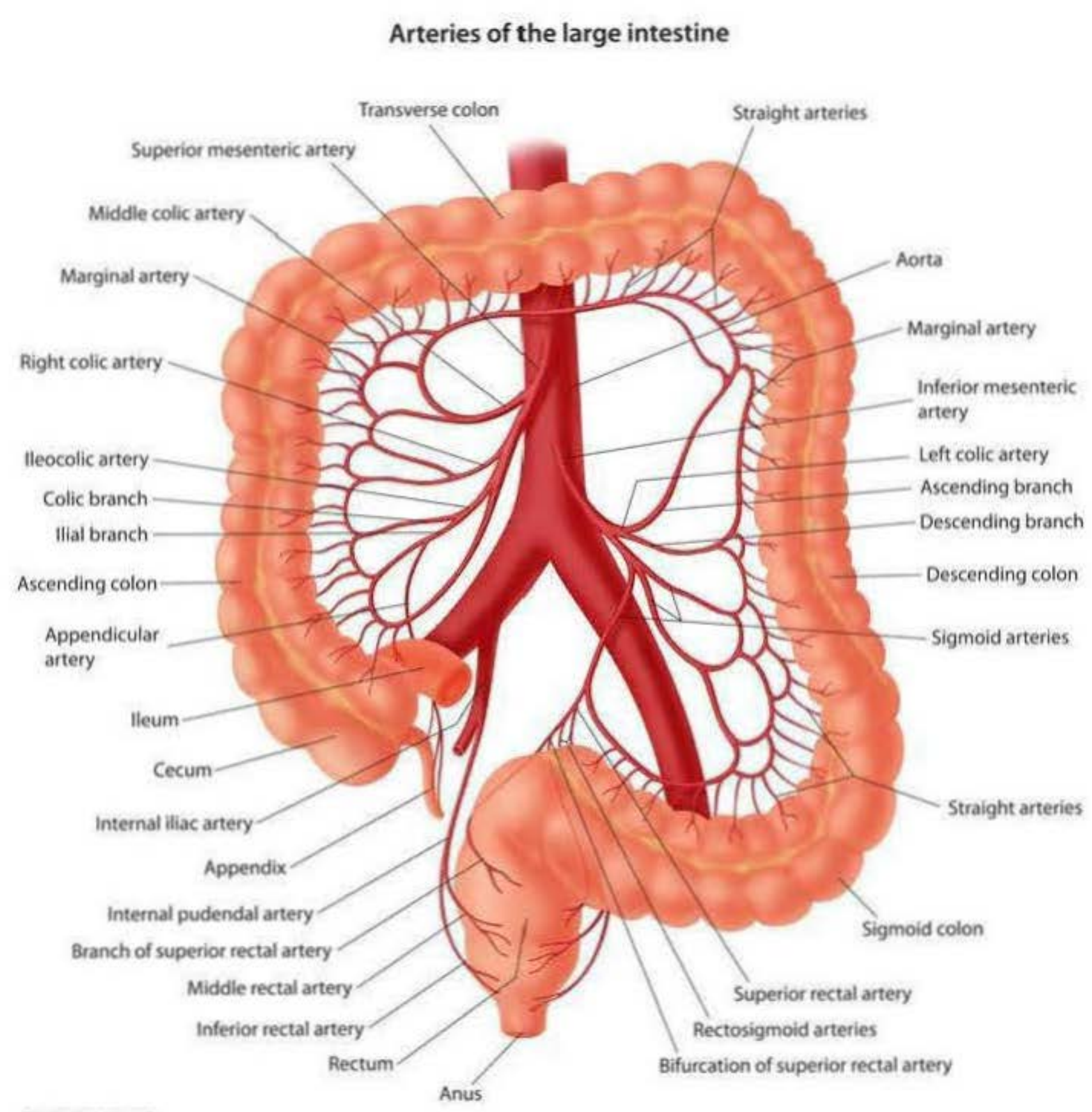
#### References:

1. [Update on colon ischemia: recent insights and advances.](#)



Media Exhibit

of the large intestine



© USMLEWorld, LLC