

A 35-year-old man comes to the office due to a 1-week history of excruciating pain during defecation. The pain is so severe that he avoids defecating. The caliber of the patient's stool has not changed, but he has had visible bright red blood on the surface of the stool. His medical history is significant for chronic constipation. The patient is taking no medications and does not use tobacco, alcohol, or illicit drugs. Vital signs are normal. On examination, the abdomen is soft with normal bowel sounds. Rectal examination shows a posterior mucosal tear of the anus and a skin tag. In addition to stool softeners and sitz baths, which of the following is the most appropriate next step in management?

- ☐ A. Colonoscopy and random mucosal biopsies
- ☐ B. Excision and closure of the fissure
- ☐ C. Gradual dilation of the sphincter
- ☐ D. Lateral sphincterotomy
- ☐ E. Topical lidocaine and nifedipine

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- ☐ A. Colonoscopy and random mucosal biopsies [9%]
- ☐ B. Excision and closure of the fissure [16%]
- ☐ C. Gradual dilation of the sphincter [4%]
- ☐ D. Lateral sphincterotomy [7%]
- ☒ E. Topical lidocaine and nifedipine [63%]

Proceed to Next Item

Explanation:

User Id: [redacted]

Anal fissures	
Etiology	<ul style="list-style-type: none"><li>Local trauma (eg, constipation, prolonged diarrhea, anal sex)</li><li>Inflammatory bowel disease (eg, Crohn disease)</li><li>Malignancy</li></ul>
Clinical presentation	<ul style="list-style-type: none"><li>Pain with bowel movements</li><li>Bright red blood on toilet paper or stool surface</li><li>Most common at posterior anal midline</li><li>Chronic fissure may have skin tag at distal end</li></ul>
Treatment	<ul style="list-style-type: none"><li>High-fiber diet &amp; adequate fluid intake</li><li>Stool softeners</li><li>Sitz baths</li></ul>



Explanation:

User Id: [REDACTED]

Anal fissures	
<b>Etiology</b>	<ul style="list-style-type: none"> <li>• Local trauma (eg, constipation, prolonged diarrhea, anal sex)</li> <li>• Inflammatory bowel disease (eg, Crohn disease)</li> <li>• Malignancy</li> </ul>
<b>Clinical presentation</b>	<ul style="list-style-type: none"> <li>• Pain with bowel movements</li> <li>• Bright red blood on toilet paper or stool surface</li> <li>• Most common at posterior anal midline</li> <li>• Chronic fissure may have skin tag at distal end</li> </ul>
<b>Treatment</b>	<ul style="list-style-type: none"> <li>• High-fiber diet &amp; adequate fluid intake</li> <li>• Stool softeners</li> <li>• Sitz baths</li> <li>• Topical anesthetics &amp; vasodilators (eg, nifedipine, nitroglycerin)</li> </ul>

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This patient has an **anal fissure** causing pain and rectal bleeding on defecation. Anal fissures are characterized by longitudinal tears in the anal canal distal to the dentate line and are most common at the posterior midline. Spasm of the sphincter contributes to the pain and creates tension across the wound, leading to a chronic fissure. Most fissures are related to **chronic constipation** with high anal pressures and passage of hard stools. They can also be seen with frequent diarrhea or anal sexual intercourse. In some cases, the pain may be so severe that patients withhold bowel movements, exacerbating the constipation. Chronic fissures can also be accompanied by an external skin tag (sentinel pile) at the distal end.

Initial treatment of anal fissures includes **dietary modification** (eg, high-fiber diet, increased fluid intake), **stool softeners**, and **sitz baths** to increase blood flow to the injured mucosa. **Topical anesthetics** (eg, lidocaine) can enhance comfort. In addition, **topical vasodilators** (eg, nifedipine, nitroglycerin) can be used to reduce pressure in, and increase blood flow to, the anal sphincter, facilitating healing.

(Choice A) Colonoscopy can rule out malignancy and inflammatory bowel disease in



**Treatment**

- High-fiber diet & adequate fluid intake
- Stool softeners
- Sitz baths
- Topical anesthetics & vasodilators (eg, nifedipine, nitroglycerin)

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**(Choice A)** Colonoscopy can rule out malignancy and inflammatory bowel disease in patients with persistent or atypical symptoms (eg, hematochezia, abnormal stool caliber). Otherwise, invasive testing is not needed for this young patient.

**(Choices B, C, and D)** Surgical intervention (eg, lateral sphincterotomy, fissure excision) is indicated for fissures that are refractory to medical management. Gradual dilation of the sphincter can provide a wider aperture for the passage of stool and interrupt the spasm but can lead to fecal incontinence and possible recurrent fissures.

**Educational objective:**

Anal fissures present with pain and rectal bleeding on defecation. Treatment includes increased fiber and fluid intake, stool softeners, sitz baths, and topical anesthetics and vasodilators (eg, nifedipine, nitroglycerin).

**References:**

1. [Anal fissure.](#)