

A 42-year-old man comes to the emergency department due to worsening anal pain for the past 2 days. The patient initially had pain only during defecation, but now the pain is constant and severe. He also has anal pruritus but has not had any drainage. The patient reports a history of constipation with hard stools every 3-4 days requiring the frequent use of laxatives. He has had bisexual relationships and has had anoreceptive intercourse in the past. Temperature is 38 C (100.4 F), blood pressure is 120/80 mm Hg, and pulse is 85/min. Physical examination shows an erythematous and tender 1-cm mass near the anal orifice with induration of the overlying skin. Which of the following is the most likely cause of this patient's current condition?

- ☐ A. Human papillomavirus infection of the anal canal
- ☐ B. Infection of an occluded anal crypt gland
- ☐ C. Overstretching and tearing of the anal mucosa
- ☐ D. Prolapse of an internal hemorrhoid
- ☐ E. Thrombosis of an external hemorrhoid




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- ☐ A. Human papillomavirus infection of the anal canal [21%]
- ☒ B. Infection of an occluded anal crypt gland [37%]
- ☐ C. Overstretching and tearing of the anal mucosa [7%]
- ☐ D. Prolapse of an internal hemorrhoid [6%]
- ☐ E. Thrombosis of an external hemorrhoid [29%]

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### Explanation:

User Id: 

This patient has an indurated, erythematous mass near the anal orifice associated with severe, constant anal pain and a low-grade fever, which is consistent with a **perianal abscess**. A perianal abscess is due to **occlusion** of an **anal crypt gland**, which allows for **bacterial infection**. Abscesses can form relatively **acutely** following gland obstruction due to the high levels of bacteria in the area. Risk factors for abscess development include anoreceptive intercourse and constipation, among others. Initially, a perianal abscess may cause pain only with defecation and mild pruritus, but as the infection progresses, the pain becomes **constant** and can be associated with systemic manifestations such as **fever**. Drainage may not be apparent unless a fistula forms.

Untreated perianal abscesses often progress to form **anorectal fistulae**, communications between the abscess and perirectal skin or nearby organs. Early recognition followed by **incision and drainage** is essential to avoid such progression.

**(Choice A)** Human papillomavirus can be transmitted via anoreceptive intercourse and result in anogenital warts (**condylomata acuminata**). Most warts are asymptomatic papules. Unlike this patient's lesions, they are rarely associated with pain and usually not associated with fever.



This patient has an indurated, erythematous mass near the anal orifice associated with severe, constant anal pain and a low-grade fever, which is consistent with a **perianal abscess**. A perianal abscess is due to **occlusion** of an **anal crypt gland**, which allows for **bacterial infection**. Abscesses can form relatively **acutely** following gland obstruction due to the high levels of bacteria in the area. Risk factors for abscess development include anoreceptive intercourse and constipation, among others. Initially, a perianal abscess may cause pain only with defecation and mild pruritus, but as the infection progresses, the pain becomes **constant** and can be associated with systemic manifestations such as **fever**. Drainage may not be apparent unless a fistula forms.

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**(Choice C)** Anal fissures are the result of overstretching and tearing of the anal mucosa, usually from rectal pressure and local trauma. Tearing pain is associated with bowel movements, and small amounts of hematochezia when wiping may be noted. Fevers, fluctuant mass, and constant pain are not generally associated with anal fissures.

**(Choices D and E)** Internal **hemorrhoids** originate above the dentate line and can prolapse through the anal canal; they are often associated with painless rectal bleeding. External hemorrhoids originate below the dentate line. Thrombosis can cause the surrounding skin to become inflamed and edematous, resulting in exquisite pain and tenderness. However, association with a fluctuant mass or fever is unusual for hemorrhoids.

#### Educational objective:

Occlusion of an anal crypt gland can lead to a bacterial infection and perianal abscess formation. Perianal abscesses often present as tender, fluctuant, erythematous masses with fever and progressively worsening pain. Anoreceptive intercourse and chronic constipation are among the risk factors for perianal abscess development.

#### References:

1. **Anorectal infection: abscess-fistula.**



Media Exhibit

ma acuminata



Media Exhibit

