Benign Anorectal Pain

A Common Problem

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Family physicians can manage the majority of patients with anorectal pain; this article outlines office management for the most common complaints. Remember to screen any patient with rectal bleeding or change in bowel habits to check for malignancy. Biopsy any suspicious epithelial changes, and refer patient to a specialist when malignancy or complex disease is suspected, or if helpful therapy may be outside of your comfort zone.

What is the relevant anatomy?

Hair-bearing perianal skin surrounds hairless anoderm at the anal verge. The richly innervated squamous anoderm continues proximally for about 3 cm before reaching the dentate line and transitioning to insensate mucosal cuboidal epithelium. The serrated dentate line contains mucous-secreting anal crypts from glands terminating in the intersphincteric space.

The internal and external sphincters are best imagined as a "tube within a tube." The inner tube is the internal sphincter, a continuation of the circular smooth muscle of the rectum. The external sphincter wraps around this muscle, and more proximally, is in continuity with the levator ani.[1]

Case 1

A 35-year-old, otherwise healthy male presents with a 24-hour history of sudden onset of anal pain after straining. There is no bleeding, and Preparation H is not helping.

How do I diagnose and treat hemorrhoids?

Development of symptomatic hemorrhoids is related to constipation (low-fibre, low-fluid diets), straining with prolonged time on the toilet and high intra-abdominal pressure (*e.g.*, heavy lifting, pregnancy, *etc*).

Internal hemorrhoids, located proximal to the dentate line, classically bleed but do not hurt.[2] When prolapsed, they can produce a sensation of incomplete emptying with a mucousy discharge. Understanding the classification of hemorrhoids helps direct management: first-degree hemorrhoids are associated with bleeding, but no prolapse; second-degree hemorrhoids prolapse, but reduce spontaneously; third-degree hemorrhoids prolapse, and require manual reduction; fourth-degree hemorrhoids have prolapsed, and cannot be reduced.

In general, for hemorrhoidal issues and other anorectal problems, a high-fibre diet is helpful; good hydration must also be emphasized and a simple information sheet for the patient regarding a high-fibre diet is important for compliance. First-degree hemorrhoids will usually respond well to this type of management (as can second- or third-degree hemorrhoids). If bleeding continues or there is prolapse (*i.e.*, second- or third-degree), outpatient rubber band ligation is a well-proven treatment. Complications, such as bleeding or anorectal sepsis are very low.[2] Multiple sessions of hemorrhoidal banding may be needed prior to seeing improvement,

and during (and after) this time a high-fibre diet remains important.

If banding does not successfully alleviate hemorrhoidal symptoms, a formal hemorrhoidectomy can be considered. In cases where hemorrhoids become incarcerated and cause acute pain, an urgent surgical consultation should be obtained.

External hemorrhoids are distal to the dentate line in the sensitive anoderm area; therefore, a thrombosed external hemorrhoid causes acute onset of an extremely painful perianal lump.[2] With a typical thrombosed external hemorrhoid, the pain will reach its maximum by 72 hours and then start to subside. Within 72 hours of onset, treatment can include incision and evacuation of all clots; usually, there is more than one large clot present, and multiple small clots should be removed along with the main clot. Alternatively, conservative treatment in the form of oral analgesics (NSAIDs are particularly effective and non-constipating) and sitz baths can be used. After 72 hours have passed, then conservative treatment is usual.[2,3]

In pregnancy, conservative treatment is preferred; if patients are having severe symptoms, refer to a surgeon. Patients with inflammatory bowel disease or suspicion of rectal varices (*i.e.*, patients with portal hypertension) should also be seen by a specialist.[2]

Case 2

A 30-year-old woman presents with bright red blood on toilet paper for three months. She has pain with defecation that lasts for up to two hours.

How do I diagnose and treat anal fissure?

Anal fissure causes bleeding and acute pain with defecation (so painful that patients will describe it as passing shards of glass). The pain can last for hours after the bowel movement, usually due to spasm of the internal sphincter muscle. A fissure is a simple tear in the anoderm which can be caused by constipated bowel movements or diarrhea. The fissure can be visualized by spreading the buttocks; digital rectal exam is avoided as it can cause great pain. Eighty percent of fissures are in the posterior midline, with 10% in the anterior midline and 5% of patients presenting with anterior and posterior fissures. Anywhere else, the fissure is atypical, and further workup and referral should be done to rule out inflammatory bowel disease, infectious causes and neoplasm.[4]

Conservative management consists of a high-fibre/high-fluid diet and warm sitz baths (as they soothe, cause relaxation of the internal sphincter, and promote better blood flow to the area to facilitate healing). Depending on symptom severity, a topical cream such as nifedipine or nitroglycerine can be used to chemically reduce the internal sphincter tone; nifedipine has fewer side effects and is therefore preferred. Reassessment can be done after six to eight weeks, and if symptoms are improving then continue treatment. If symptoms continue for more than three months, the fissure is considered chronic (vs. acute). Physical findings of a chronic fissure can include a hypertrophied anal papilla at the dentate line, rolled edges with exposed fibres of internal sphincter and a 'sentinel' skin tag. If a patient initially presents with a chronic fissure, conservative management, as used with an acute fissure, can be utilized.[4]

If conservative treatment and topical ointments fail, the next usual options are botulinum toxin injection and lateral internal sphincterotomy. Lateral internal sphincterotomy is the gold standard, with a greater than 90% success rate.[5] There is a risk (in some studies, as high as 20% to 30%) of incontinence to flatus, liquid or solid

stool.[5] As a result, many patients will first opt for a "chemical sphincterotomy" with botulinum toxin, but success rates are much lower (in chronic fissures, are around 50 to 60%).[6]

Case 3

A 35-year-old lawyer presents with a three day history of perianal pain, fevers and chills. The pain keeps her up at night and is worse with coughing and sneezing.

How do I diagnose and treat perianal abscess?

The patient with abscess presents with pain, fevers, chills, and a localized warm, red, swelling. Abscesses develop when an anal crypt gland at the dentate line becomes infected. The anatomic spaces where abscesses collect are: intersphincteric, perianal, ischiorectal, and supralevator. Some abscesses track around to the opposite side of their origin, or if they originate in the midline, spread in both directions – they are termed "horseshoe" abscesses.[7]

Antibiotics will not treat the abscess; it should therefore be drained. A cruciate incision is made over the collection to drain the pus. Next, the skin is excised to leave a diamond-shaped defect to completely drain the abscess. Initial packing may be done for hemostasis, but prolonged packing is not advised.[8] Spreading to divide "loculations" is also not advised, as the "loculations" may be nerve fibres and disruption of these may lead to incontinence.[9] Antibiotics can be given after drainage of the abscess in immunocompromised patients, or in cases of extensive cellulitis, diabetes or valvular disease. It is important to inform the patient that after drainage, approximately 30% will develop a fistula.[7] Dx

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