



# 11

## Approach to Anal Pain

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### Key Concepts

- A careful history should direct the diagnosis for patients with anal pain.
- A considerate yet thorough physical exam will usually establish the diagnosis by visualizing pathology or by palpating abnormalities. If not possible in the office, then an exam under anesthesia should be performed.
- Imaging is rarely needed to determine the etiology.
- An anal fissure will typically cause sharp anal pain during and after a hard bowel movement.
- The anal pain associated with a thrombosed external hemorrhoid is usually constant and accompanied by a palpable swelling but without systemic signs of infection.
- Cancer should always be included in the differential diagnosis.

### Introduction

One of the more common complaints of patients consulting with colon and rectal surgeons, general surgeons, and primary care physicians is anal pain. In Western culture, the anus is generally taboo to speak about socially. In addition, it is a body region that is difficult for an individual to inspect on himself or herself. Yet anal and rectal pathologies can be inconvenient and are commonly debilitating. It is not unusual to have a patient with an acutely thrombosed external hemorrhoid or a perianal abscess completely incapacitated by their pain. Anal pain as a symptom encompasses a broad spectrum of diagnoses from the benign and self-limited to the neoplastic and life-threatening. A thoughtful and logical methodology is essential to efficiently diagnose and treat patients with anal pain.

### Patient History

As with most things in medicine, taking a careful history is foundational when evaluating patients with anal pain. Listening to patients stories in their own words with a focus on their emphasis as much as on their words typically offers clues to the underlying problem. An experienced colorectal surgeon can often surmise the patient's diagnosis prior to any examination just by listening to key descriptions by the patient. An emphasis on pain characteristics is important. One should concentrate on the duration, location (intra-anal, external), character (burning, sharp, dull), causative agents (bowel movement, diarrhea, hard stool, exercise, fecal incontinence, drainage), associated signs and symptoms (fever, chills, weight loss, change in bowel habits), and items that provide any relief (warm water bath, bowel movement, topical creams).

Other elements of the patient history are also important and can provide some guidance. A personal history of diabetes may suggest an anal abscess or Fournier's gangrene. A history of inflammatory bowel disease may hint at anal fissures, fistulae, or abscess. A medication history of infliximab or etanercept may point to psoriasis as a cause for pruritus. A strong family history of colorectal cancer may lead to consideration to rule out rectal cancer as a cause for anal pain. A history of anoreceptive intercourse may raise the concern about sexually communicable infectious diseases, anal dysplasia, or anal cancer.

Finally, one should not be misled by either the patient's or referring physician's working diagnosis; for example, an alternate diagnosis should be considered for the patient who was told they have an anal fissure but whose history doesn't fit. Frequently anal symptoms or signs are called "a hemorrhoid" by default by the non-initiated when in fact the true pathology

ranges from pruritus to anal cancer, with the occasional correctly diagnosed thrombosed external hemorrhoid.

A few symptom patterns are so common as to be nearly universal.

### Anal Fissure (Figure 11-1)

Patients with a diagnosis of anal fissure typically describe sharp, “knife-like,” pain during and immediately after a bowel movement [1, 2]. If the pain has not been too chronic, they may recall and describe a precedent hard, constipated bowel movement. They state that the pain may last for minutes or hours after passing stool. Sometimes the pain is so severe; they state they are afraid to have a movement. It isn’t uncommon to hear a patient state that he/she will have spotting of blood on the toilet paper after wiping. Some patients will also describe relief with a warm water bath.

### Acutely Thrombosed External Hemorrhoid (Figures 11-2 and 11-3)

Patients can usually tell you precisely when they developed an acutely thrombosed external hemorrhoid. They describe

sharp, constant pain after straining, either with a bowel movement (loose or constipated) or lifting something heavy. The pain will coincide with a “bulge” they feel near the anal opening. The pain will last all day, usually increasing gradually, and then decrease over the week [3–6]. Depending on when the patient presents to the office, the pain may be either increasing or decreasing in intensity. They will say it hurts to sit or touch the area. They will not have fever.

### Perianal, Perirectal, or Ischiorectal Abscess (Figure 11-4)

Some of the most uncomfortable patients will be those who have an acute abscess [7–11]. Their history is one of gradually worsening pressure and pain. The pain is worse before and during a bowel movement. There may be slight improvement afterward, but the pain lingers. They will typically describe fever and chills. These patients often refuse to sit due to the pain. There can be some similarity of symptoms with patients who have a thrombosed external hemorrhoid, but the primary difference in presenting symptoms is the presence of systemic symptoms of infection. Inability to urinate is a common associated complaint.

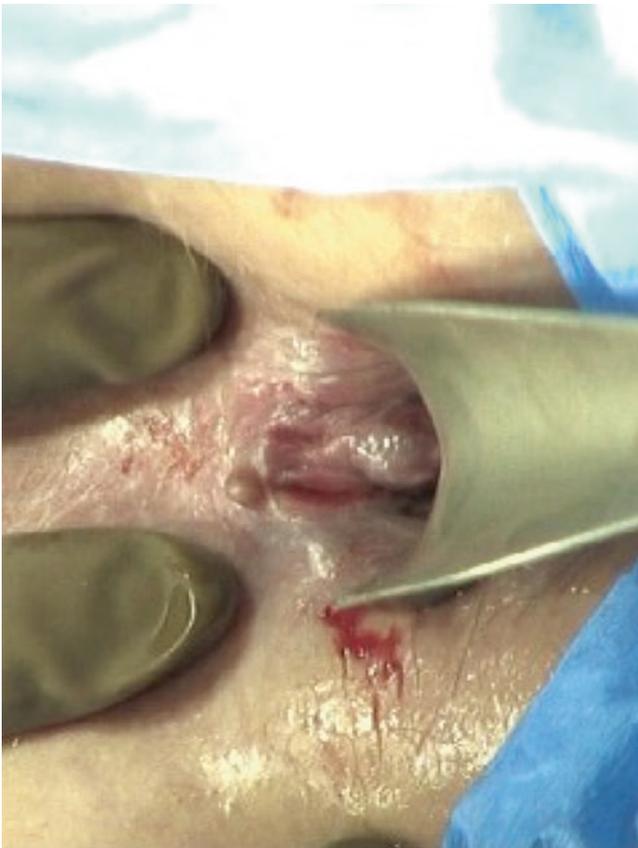


FIGURE 11-1. Anal fissure.



FIGURE 11-2. Acutely thrombosed external hemorrhoid.

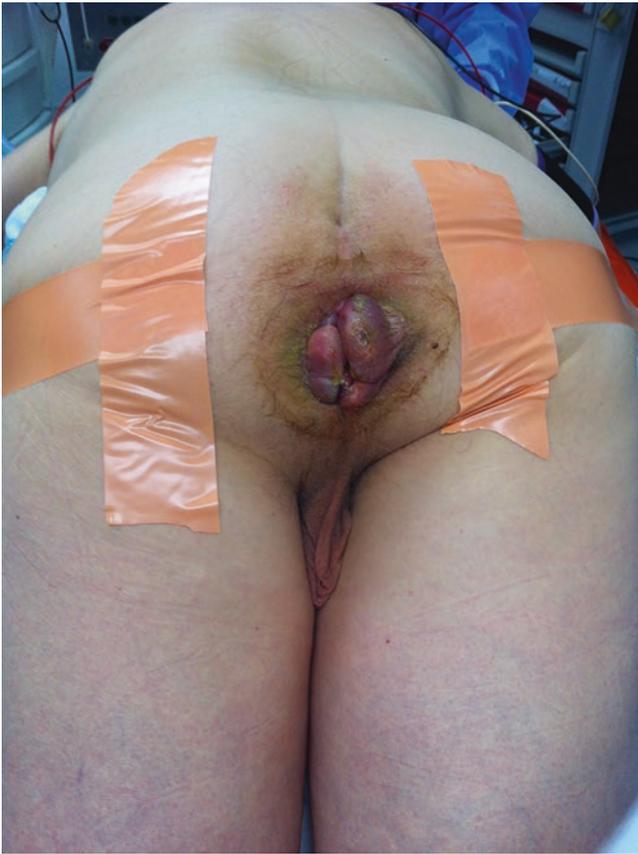


FIGURE 11-3. Hemorrhoidal crisis.



FIGURE 11-4. Perianal abscess.

### Pruritus Ani (Figure 11-5)

The symptoms of patients with pruritus ani [12, 13] are occasionally described as painful but not often. Only after further discussion is the pain clarified to be burning or

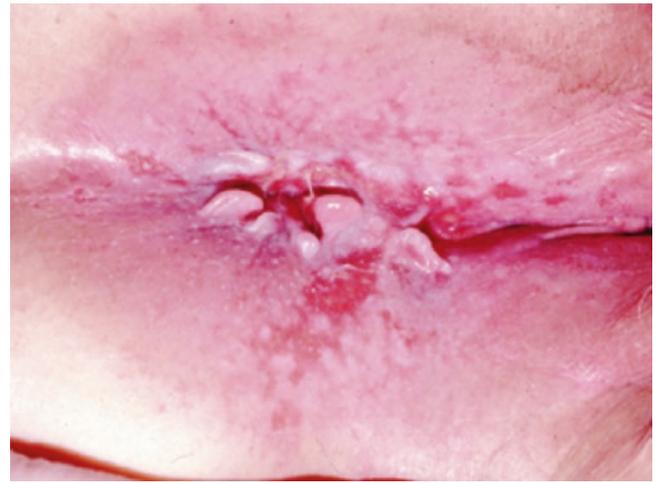


FIGURE 11-5. Pruritus ani.

itching. It is clear that the sensory response of the anoderm and perianal skin is variable between individuals and may be less discriminatory (or may be just different) than other areas of the body. There does seem to be some overlap in the description of sensations of burning, itching, and pain. The irritation is nearly universally chronic in nature and may be associated with other synchronous diagnoses.

### Levator Syndrome

The pain history that patients with pelvic floor dysfunction (levator ani syndrome, proctalgia fugax, outlet obstruction constipation) [14, 15] describe is more variable than for the other diagnoses listed so far. This lack of fitting into a typical pattern itself often points to the diagnosis. The pain may be sharp, dull, burning, or achy. It may be intermittent or constant. The pain may or may not improve with warm water baths. It may be worsened or improved with bowel movement. Often the pain is chronic and worse late in the day. Unless there is associated other pathology, they will not describe fever or bleeding. Some will complain of difficulty with evacuation of stools.

### Anal or Rectal Cancer (Figure 11-6)

The fear of malignancy is often part of the reason patients seek medical attention for anal pain. Thankfully, the vast majority of patients who present with anal pain have benign processes; however, the alert physician will always consider cancer within the differential diagnosis. Physicians should not become lulled into complacency after seeing several patients with typical anal fissures, only to misdiagnose a patient with an anal verge squamous

FIGURE 11-6. Anal squamous cell carcinoma.



cell carcinoma with a posterior midline ulceration. Anal and rectal cancers can present with pain [16–19]. Rectal cancers can cause pain (especially if low and advanced) with bleeding and change in bowel habits [16]. There is often weight loss associated with the presentation. Anal cancer can present more subtly. Symptoms may overlap with those of anal fissure with pain during and after a bowel movement along with spotting of blood on the toilet paper. There may or may not be an associated mass felt by the patient. Fever, chills, weight loss, and groin adenopathy may also be included in the patient history.

## Physical Examination

Although an astute physician can often determine a cause for a patient's anal pain from the history, it takes a careful, systematic examination to confirm the working diagnosis. While a complete physical exam is important, the regional high yield focus of the examination includes the abdomen, inguinal, perianal skin and soft tissue, buttocks and gluteal cleft, anal canal, and rectum.

### Abdominal Examination

Anal pathology can on occasion manifest with abdominal findings. An obstructing cancer can cause distention or alteration of bowel sounds. Metastases can present with hepatomegaly. Diverticulitis can manifest with anal abscess or

fistula [20] in addition to abdominal pain or tenderness to palpation. Look for scars of prior operations that may suggest an associated diagnosis. Crohn's disease patients may be very thin and cachectic if they have both anal disease and bowel manifestations.

### Inguinal Examination

The inguinal examination may identify adenopathy. Rectal adenocarcinomas can present with inguinal adenopathy if they are located low in the rectal vault or if there is high volume lymphatic metastatic disease in the iliac chains. Anal canal and anal margin squamous cell carcinomas, when metastatic, often present with inguinal adenopathy following anatomic drainage patterns [21–23]. This exam finding has implications for radiotherapy mapping and surveillance of disease regression or recurrence.

### Perianal, Gluteal, and Intergluteal Examination

The anal examination requires extreme sensitivity to the patient's physical and psychological condition. They may be embarrassed, in pain, or fearful. Put the patient at ease. Many will appreciate a careful description of the exam as it is performed and an explanation of findings along the way. Take care to warn them before initiating any invasive component of the exam. Putting the patient at ease will foster trust and help the physician obtain more productive data in their analysis.



FIGURE 11-7. Anal fistula.



FIGURE 11-8. Anal stricture.

Visual examination of the anus is essential. One should look for abnormalities of the skin including color, scaly skin, thickened folds, masses, secondary openings of fistula-in-ano (Figure 11-7), evidence of abscess with swelling or redness, skin tags, and external hemorrhoid enlargement. Usually, anal fissure can be diagnosed by visualizing the anoderm before anoscopy with gentle retraction of the buttocks to evert the anoderm and expose the fissure. In the intergluteal cleft, look for sinuses, abscess, and pilonidal pits. Anal stenosis can be seen in some patients after anal surgery (Figure 11-8). The rare subcutaneous mass may be benign or malignant. An assessment of size, fixation, character, firmness, and tenderness is sometimes helpful in establishing the diagnosis (Figure 11-9).

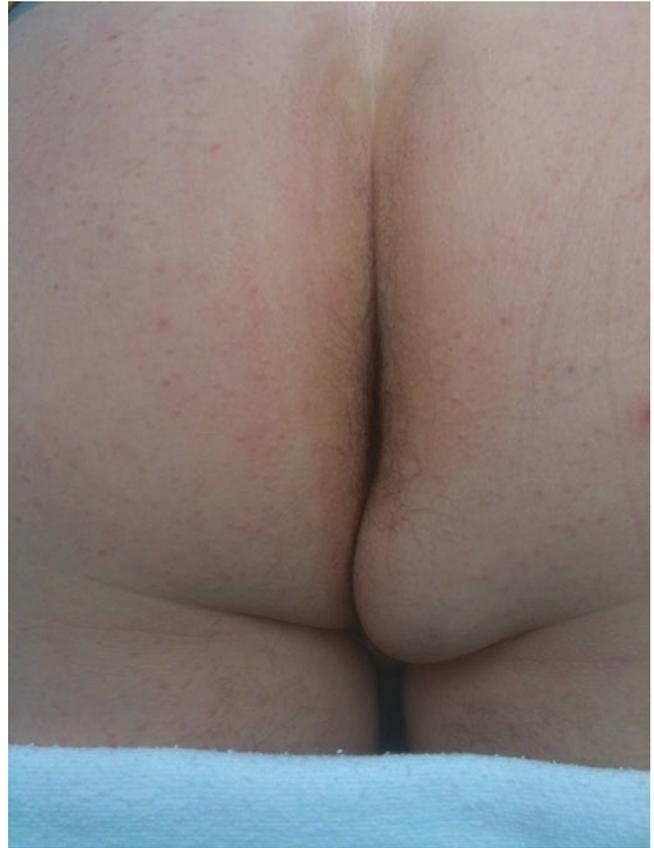


FIGURE 11-9. Solitary fibrous tumor.

## Digital Rectal Examination

Next, the physician should assess the skin. Is the skin tacky to the touch, consistent with pruritus changes? Specific areas of pain, warmth, or masses should be examined. Prior to the digital rectal examination, the anus should typically be lubricated and a topical anesthetic used, especially if the patient is in pain. If for some reason, *Neisseria gonorrhoeae* is suspected, lubrication should be avoided prior to taking cultures. One should feel for any abnormal anal or distal rectal masses and anal tone. If low resting tone, stool seepage may be a cause for pruritus pain. If tone is high and there is twitching of the anal sphincter, even if there is no visible fissure, a diagnosis of anal fissure disease is likely. The tightness of levator muscles should be assessed bilaterally starting at the coccyx; this will often reproduce the pain or pressure of levator spasm. One should assess for the fluctuant swelling typical of an abscess, and the sacral hollow should be examined for presacral masses or cysts. The coccyx should

be distracted to assess for coccydynia; the prostate should be palpated since prostatitis may be the cause of anal pain. If the pain is too intense and the patient cannot tolerate the exam in the office setting, an examination under anesthesia should be scheduled.

## Rectal Inspection, Anoscopy, and Sigmoidoscopy

After the digital rectal examination, particularly if the diagnosis is not clear and if the patient tolerated the exam without too much pain, an anoscopic or sigmoidoscopic examination should be performed. These endoscopic tools will help identify intra-anal and rectal lesions. Rarely, an anal melanoma may be seen (Figure 11-10). More common, abnormalities can include lesions from various sexually transmitted infections, mucosal changes of inflammatory bowel disease, internal hemorrhoid disease, or rare conditions, such as melanoma.

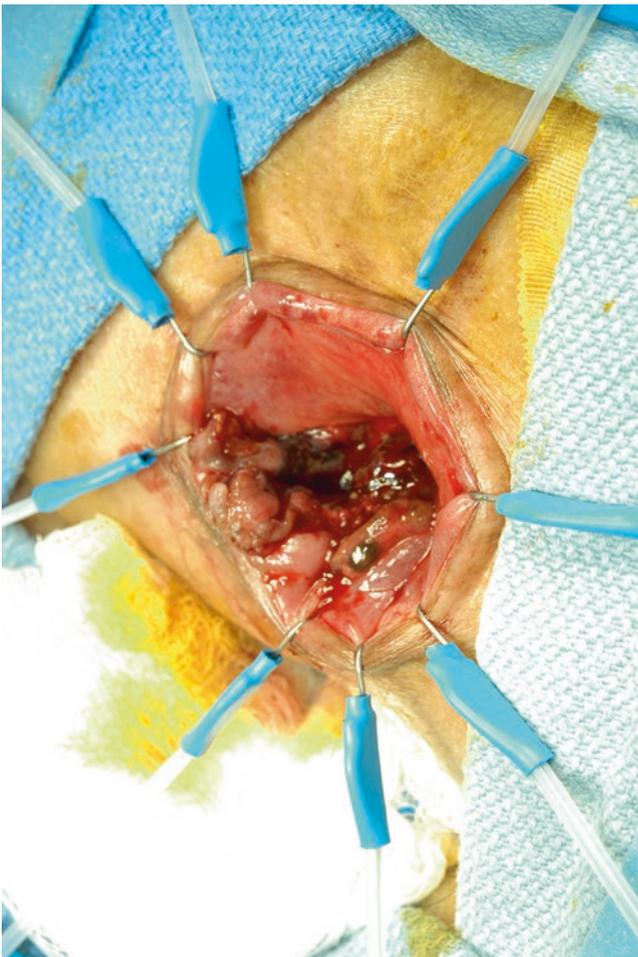


FIGURE 11-10. Anal melanoma.

## Imaging and Diagnostic Testing

The history and examination will occasionally lead to a need to order confirmatory or diagnostic imaging studies. A rare patient whose history is consistent with anorectal abscess, but in whom an abscess cannot be found on exam, may benefit from a CT of the pelvis. A cine-videodefecogram or dynamic MRI of the pelvis may help confirm the diagnosis of a patient with suspected proctalgia fugax or other pelvic floor disorders. High-resolution anorectal manometry [24] and balloon expulsion can be used to differentiate outlet obstruction for patients with constipation. If an anal or rectal cancer is identified on examination, staging with ultrasound, MRI, and CT is appropriate. A pelvic radiograph can identify some foreign bodies (Figure 11-11).

## Conclusion

A systematic approach to anal pain will ensure efficient diagnosis and initiation of effective treatments (Figure 11-12). A combination of careful history and detailed examination is nearly universal in obtaining the correct diagnosis. However, in the rare situation where the pain is still of unclear etiology, an examination under anesthesia may be warranted. Even more rarely, would imaging be necessary other than to further delineate an abnormality found on examination.



FIGURE 11-11. Foreign body.

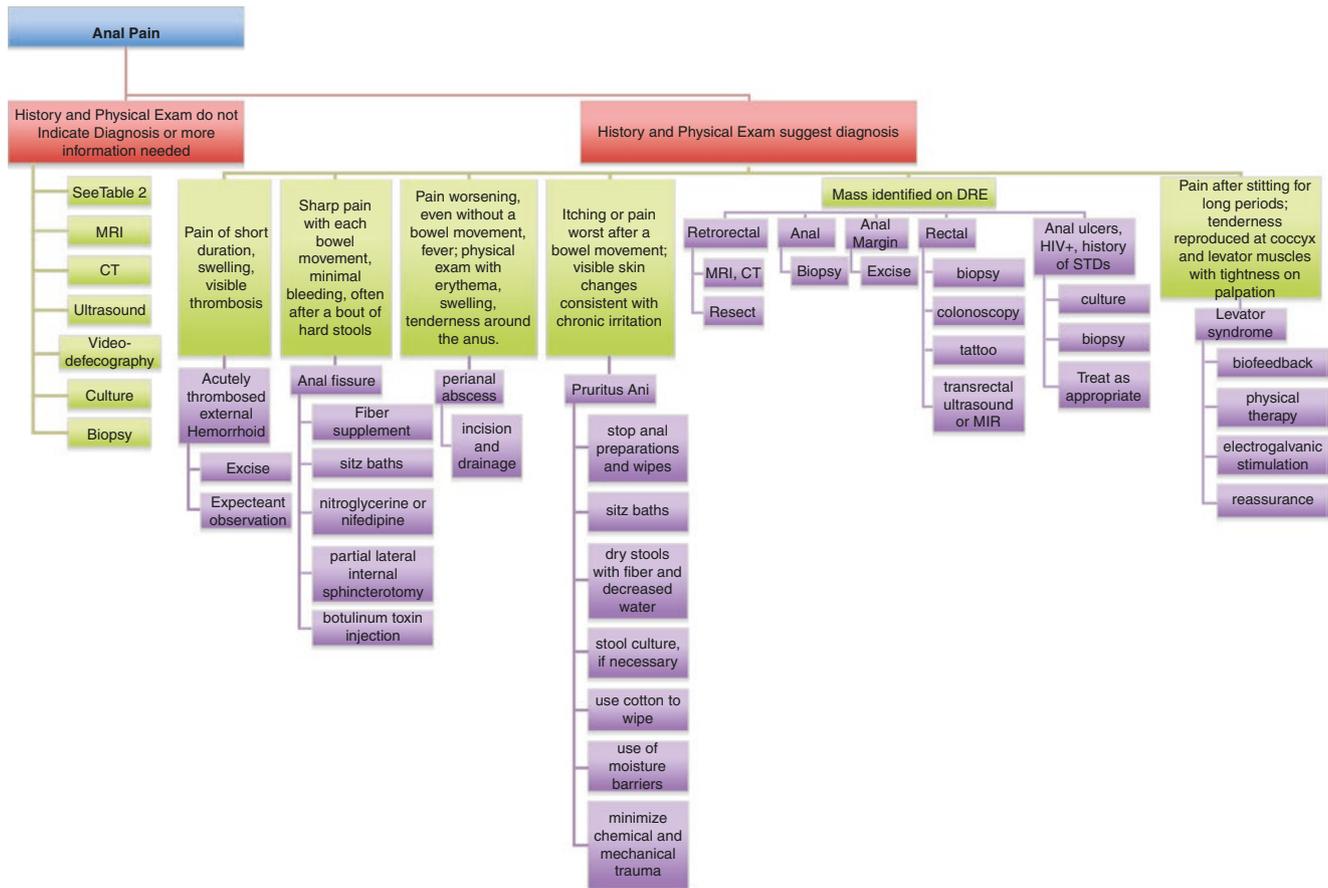


FIGURE 11-12. Systematic approach to anal pain. With permission from Billingham R. *Chronic anal pain*. In: Steele, S.R., Maykel, J.A., Champagne, B.J., Orangio, G.R. (Eds). *Complexities in Colorectal Surgery. Decision-Making and Management*. Springer, New York, 2014. © Springer.

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