Figure 3: Chronic or recurrent anorectal pain

1. Patient with chronic or recurrent anorectal pain

2. Do history and physical exam/tests suggest structural disease?
   - No
   - Yes

   - Yes: Do appropriate diagnostic work-up for inflammatory bowel disease, perianal/perirectal abscesses, anal fissure painful gynecologic disorders

3. No

4. Is pain associated with bowel movements or eating?
   - No
   - Yes

   - No: Do appropriate diagnostic work-up for inflammatory bowel disease, perianal/perirectal abscesses, anal fissure painful gynecologic disorders

5. Yes

   - Assess for painful functional gastrointestinal disorders (i.e. IBS)

6. Is pain episodic and brief with pain-free intervals?
   - Yes
   - No

7. Proctalgia fugax

8. Is the levator muscle tender to palpation?
   - Yes
   - No

9. Unspecified functional anorectal pain

10. No

   - Yes: Levator ani syndrome
Chronic anorectal pain

Case History

A 52 year old woman is referred to a gastroenterologist because of rectal discomfort of 8 months duration (Box 1, Fig 3). She describes the pain as a deep, dull aching discomfort, lasting for some hours, and often precipitated or worsened by sitting (Box 2). The pain is not associated with bowel movements or eating (Box 4). The pain occurs inconsistently but is present, at a moderate level of severity, for as many as 4-5 days each week, and there are no pain-free intervals (Box 6). She averages 5 bowel movements weekly, passed with minimal straining and, on some occasions with a sense of incomplete evacuation; there has been no change in bowel habits and no rectal bleeding. There is no history of dyspareunia, dysuria, back pain or trauma. She has had no pelvic surgery. A pelvic exam by her gynecologist was normal and a pelvic ultrasound was negative (Box 2). A screening colonoscopy 2 years ago was normal. She has no other significant medical illnesses.

General physical examination, including abdominal and neurological examination, is normal. Digital rectal examination discloses no perianal disease or tenderness (Box 2). Anal canal tone and squeeze are normal. Perianal pinprick sensation and anal wink reflex are normal. Palpation of the coccyx is not painful and no masses are felt. However, there is tenderness with posterior traction of the puborectalis muscle, greater on the left than right (Box 8).

The gastroenterologist arranges a complete blood count and ESR and recommends flexible sigmoidoscopy and perianal imaging (Box 2), to exclude inflammation and neoplasia. These tests are normal. A diagnosis of levator ani syndrome is made (Box 9).
**Figure legend**

1. Pain present for at least 6 months is required for a diagnosis of functional anorectal pain syndrome. Patients with chronic anorectal pain have chronic or recurrent anorectal pain; if recurrent, pain lasts for 20 minutes or longer during episodes. In contrast, patients with proctalgia fugax have brief episodes of pain lasting seconds to minutes with no pain between episodes (28).

2-3. The history and physical exam should identify alarm and other features suggesting structural disease such as severe throbbing pain, sentinel piles, fistulous opening, and anal tenderness during digital examination or while gently parting the posterior anus, anal strictures or induration (34).

Relevant organic causes of pain including inflammatory bowel disease, peri-anal abscesses, anal fissure, and painful gynecological conditions should be considered and identified by tests. If pain is associated with and worsened by menses, conditions that might include endometriosis, dysfunctional uterine bleeding or other gynecological pathology should be evaluated by pelvic examination, pelvic ultrasound and/or referral to a gynecologist.

Minimal diagnostic work-up (in the absence of alarm signs) includes: CBC, ESR, biochemistry panel, flexible sigmoidoscopy, and perianal imaging with ultrasound or MRI. If there is a high index of suspicion for anal fissures, anoscopy should be considered.

4-5. Pain associated with bowel movements, menses or eating, excludes the diagnosis of functional anorectal pain. If pain is associated with bowel movements and leads to frequent, looser stools or infrequent harder stools with relief upon defecation (any combination of two) then a diagnosis of IBS should be considered. See ‘recurrent abdominal pain and disordered bowel habit’ algorithm.

6. An important feature of the history is whether the pain is episodic, with pain-free intervals, or not. In chronic proctalgia, pain is generally prolonged (i.e., lasts for hours), is constant or frequent, and is characteristicikally dull. In proctalgia fugax, the pain is brief (i.e., lasting seconds to minutes), occurs infrequently (i.e., once a month or less often), and is relatively sharp.
Observation of symptom-reporting behaviors is also important. These include verbal and non-verbal expression of pain, urgent reporting of intense symptoms, minimization of a role for psychosocial contributors, requesting diagnostic studies or even exploratory surgery, focusing on complete relief of symptoms, seeking health care frequently, taking limited personal responsibility for self-management, making requests for narcotic analgesics.

7. **Rome III diagnostic criteria for proctalgia fugax** include all of the following:

   1. Recurrent episodes of pain localized to the anus or lower rectum
   2. Episodes last from seconds to minutes
   3. There is no anorectal pain between episodes

8. **Rome III diagnostic criteria for chronic proctalgia** include all of the following: 1) chronic or recurrent rectal pain or aching 2) episodes last 20 min or longer 3) exclusion of other causes of rectal pain such as ischemia, inflammatory bowel disease, cryptitis, intramuscular abscess, anal fissure, hemorrhoids, prostatitis, and coccygodynia 4) criteria fulfilled for last 3 months with symptom onset at least 6 months prior to diagnosis

In chronic proctalgia, levator ani tenderness differentiates levator ani syndrome from unspecified functional anorectal pain. Coccygodynia is characterized by pain and point tenderness of the coccyx (9). Most patients with rectal, anal, and sacral discomfort have levator rather than coccygeal tenderness (10).

9. **Rome III diagnostic criteria for levator ani syndrome** include symptom criteria for chronic proctalgia and tenderness during posterior traction on the puborectalis muscle

10. **Rome III diagnostic criteria for unspecified functional anorectal pain** include symptom criteria for chronic proctalgia but no tenderness during posterior traction on the puborectalis muscle.

   In a patient with levator ani syndrome, anorectal manometry and rectal balloon expulsion testing should be considered. A recent study suggests that approximately 85% patients with levator ani syndrome had
impaired anal relaxation during straining and approximately 85% had abnormal rectal balloon expulsion. It is unclear if dyssynergia is a cause of or secondary to pain. However, dyssynergia may guide management as discussed below.

Treatment options to present to the patient can then be formulated. A randomized control trial showed that inhalation of salbutamol (a beta adrenergic agonist) was more effective than placebo for shortening the duration of episodes of proctalgia for patients in whom episodes lasted 20 minutes or longer (35). In a controlled study of 157 patients with levator ani syndrome, adequate relief of pain was more likely after biofeedback therapy for a concomitant evacuation disorder (87%) than electrogalvanic stimulation (EGS) (45%) or rectal digital massage (22%) (36). Biofeedback and EGS also improved pelvic floor relaxation in levator ani syndrome. In contrast, none of these measures benefited patients with functional anorectal pain. While features of disordered defecation did not augment the utility of levator tenderness for predicting a response to biofeedback therapy, it is useful to assess defecatory functions because (i) the presence of dyssynergia prior to training and improvement thereof after training was very highly correlated with the success of biofeedback (and also EGS), and (ii) the biofeedback protocol is more logical to patients and providers in the presence of dyssynergia. Other treatment options include TCA or SSRI therapy or non-pharmacological therapy such as cognitive-behavioral therapy (CBT), hypnotherapy, or dynamic or interpersonal psychotherapy.