Case Report: Paraspinal Abscess Complicating Crohn’s Disease

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Abstract

Purpose: We present a case of a paraspinal abscess as a complication of Crohn’s disease, which is a rare occurrence for a Crohn’s related abscess.

Methods: Chart review and case presentation.

Results: A 27-year old male diagnosed with Crohn’s disease six years ago presented with severe right lower quadrant abdominal pain and back pain. A CT scan demonstrated an abscess superficial to the right posterior paraspinal muscles. The patient was initially treated with percutaneous drainage of the abscess and antibiotics, and then received definitive treatment with a laparoscopic assisted ileocolic resection.

Conclusions: Intra-abdominal and pelvic abscesses are common complications of Crohn’s disease, while psoas and iliopsoas abscesses are quite rare. The location of this abscess is particularly interesting as the fistula tracked into the retroperitoneum and resulted in an abscess adjacent to the paraspinal muscles, which is a presentation that has not been widely reported.

KEYWORDS: Crohn’s disease, abscess, paraspinal muscles, complication
INTRODUCTION

Crohn’s disease is an inflammatory bowel disease characterized by full-thickness granulomatous inflammation of the bowel wall that is associated with a number of serious complications including fistulas and abscesses. There have been many reported cases of psoas abscesses as well as spinal cord abscesses. However, there are no reported cases of Crohn’s disease complicated by an abscess located superficial to the posterior paraspinal muscles. We report the case of a patient who had known Crohn’s disease with no previous surgery who presented with an abscess superficial to the paraspinal muscles in his right lower back requiring percutaneous drainage and subsequent ileocolic resection.

CASE PRESENTATION

P.M. is a 27-year old male diagnosed with Crohn’s disease in 2005 who initially presented with severe right lower quadrant abdominal pain and back pain in December 2010. He was diagnosed with an abscess on CT scan at that time, five months prior to presenting to our institution. The patient had percutaneous drainage of the abscess at another institution in January and was hospitalized for three days and treated with intravenous antibiotics. Upon discharge he continued a course of oral antibiotics and the drainage catheter was left in place. The drain was removed in early April but the abscess recurred shortly afterwards and rapidly increased in size leading to increased pain at the site of the abscess.

FIG 1 Computed tomography scan of lower back: (A) A 4.4 x 11.8 cm fluid collection just superficial to the posterior paraspinal muscles of the right lower back (outlined by white arrows) (B) After placement of drain demonstrating significant reduction of abscess size
The patient was transferred to our institution in mid-April for specialty care. He had no other medical problems and was taking mesalamine, cefazolin and metronidazole on presentation. He showed no signs of systemic infection and his abdomen was soft and non-tender with no masses appreciated. However, his right flank and lower back had an area of induration that was tender to palpation.

The CT scan showed Crohn’s disease of the small bowel and ascending colon as well as a 4.4 x 11.8 cm fluid collection just superficial to the posterior paraspinal muscles of the right lower back (Fig 1.). The patient underwent a CT-guided percutaneous drainage of the retroperitoneal abscess (100cc of purulent fluid) with placement of a 8-Fr drain and a planned interval resection of the diseased bowel. The procedure was uneventful and the patient was started on intravenous ampicillin/subactam.

On hospital day 7, the patient underwent a laparoscopic-assisted ileocolic resection and primary anastomosis, takedown of a colo-colonic fistula, and transection of posterior fistula. Intraoperatively, Crohn’s was found to involve the cecum (with a colo-colonic fistula from the cecum to the proximal transverse colon) as well as the distal 10 cm of the terminal ileum. A fistula also appeared to extend from the cecum posteriorly thru the mesentery towards the retroperitoneum – presumably the source of the paraspinal abscess. The procedure was uneventful and the postoperative course was uncomplicated. The patient was discharged home on postoperative day five on fluconazole and amoxicillin/clavulanic acid.

**DISCUSSION**

Crohn’s disease is an inflammatory bowel disease characterized by full-thickness granulomatous inflammation of the bowel wall that is associated with a number of serious complications. Because of the transmural nature of the inflammatory process, patients with Crohn’s disease are prone to fistulas and abscesses. Between 10-30% of patients with Crohn’s disease develop intra-abdominal or pelvic abscesses with one study showing that approximately 26% are located in the retroperitoneal or psoas muscle.\textsuperscript{1,2}

The treatment strategy for these intra-abdominal abscesses has changed over time. Traditionally, early surgical intervention was the treatment of choice with drainage of the abscess and possible ostomy creation. More recently, antibiotics and percutaneous drainage have been utilized to control the abscess with surgical resection performed at a later time allowing a one-stage procedure.\textsuperscript{3,4,5} Medical management alone, without drainage of the abscess has been shown to be
ineffective in over 50% of cases. In the past, surgical drainage was the treatment of choice but with more effective imaging modalities such as computed topography and ultrasound, percutaneous drainage has become a preferred method of initial treatment along with an appropriate antibiotic regimen.

There have been many reported cases of psoas abscesses complicating Crohn’s disease as well as multiple cases reports of abscesses in the spinal cord. However, there are no reported cases of Crohn’s disease complicated by an abscess in or adjacent to the posterior paraspinal muscles. The location of this abscess makes this an important case. This patient initially presented with abdominal pain as well as back pain. This patient was already diagnosed with Crohn’s disease six years previously. However, this case demonstrates that a paraspinal abscess could be the presenting problem with Crohn’s disease.

CONCLUSION

Crohn’s disease is an inflammatory bowel disease that has systemic consequences. Abscesses are a fairly common complication usually presenting in the abdomen, pelvis, or peri-anal area. However, this case shows that an abscess can also present in the back along the superficial paraspinal muscles. This is an unusual complication of Crohn’s disease. Though our patient had been previously diagnosed with Crohn’s disease, this presentation shows that a back mass discovered to be an abscess could be a presenting problem for a patient with Crohn’s disease.

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