

# Iliopsoas Bursitis Presenting as Hip Pain Secondary to Crohn's Fistula

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## Citation

T Williams, J Blase. *Iliopsoas Bursitis Presenting as Hip Pain Secondary to Crohn's Fistula*. The Internet Journal of Gastroenterology. 2007 Volume 7 Number 1.

## Abstract

Crohn's disease is a recurrent transmural inflammatory condition of the bowel, leading to bowel wall thickening, fixation of bowel loops, frequently complicated by stricture, fistula and abscess formation. We report a case of a patient with longstanding Crohn's disease with septic iliopsoas bursitis, presenting as worsening right-sided hip pain secondary to psoas abscess and fistula formation to the iliopsoas bursa as a rare complication of Crohn's disease.

## INTRODUCTION

Crohn's disease or regional enteritis is a recurrent, transmural inflammatory condition, occurring anywhere in the GI tract, but primarily affecting the small bowel and colon with the terminal ileum commonly affected [1,2]. Patients typically present with chronic diarrhea, abdominal pain, and weight loss, but may present with more acute abdominal symptoms. Chronic gastrointestinal manifestations include bowel wall thickening, bowel wall fixation, with stricture, fistula and abscess formation. The lifetime risk for developing fistulous tracts in Crohn's disease is 20-40%, with peri anal fistulas being most common [3]. Fistula formation is more common in older patients. Fistulas can involve other portions of the GI tract, the GU tract urinary including the bladder, vagina, rarely the fallopian tubes, as well as the skin, and muscle i.e. psoas abscess [4].

We report a patient with a long standing history of Crohn's disease, who presented to the Emergency Department with an 8 month history progressive right hip pain, and difficulty ambulating, secondary to a right psoas abscess with fistulization to the right iliopsoas bursa, as a complication of Crohn's disease. This is a very unusual clinical presentation, and rare complication of Crohn's disease.

## CASE REPORT

Our patient is a 23 year old female with a past medical history significant for long standing Crohn's disease, diagnosed at age 12, and a surgical history of prior terminal ileum/proximal colectomy with primary ileocolic

anastomosis, who presents to the emergency department with a chief complaint of increasing right hip pain which began 8 months prior. The pain was initially intermittent and exacerbated by movement, and now is constant and present at rest, making ambulation difficult. There is no history of trauma. The patient also complains of subjective fever and 10 pound weight loss over the past month. Physical examination reveals limited range of motion in the right hip associated with pain on passive motion. The patient is unable to bear weight secondary to the severe pain. Strength and sensation within the lower extremities is normal. There is no erythema or generalized lower extremity swelling. Laboratory analysis revealed a leukocytosis at 13,300, and elevated ESR of 55. Conventional AP pelvis and frog leg hip radiographs were negative.

Orthopedic surgery was consulted and ultrasound guided aspiration of the right hip was performed in order to evaluate for septic arthritis. Focused right hip US revealed a thickened right hip joint capsule, no significant joint effusion and multiple echogenic foci with "dirty shadowing" thought to represent debris or air in the region of the iliopsoas bursa (figure 1). Aspirate of the right hip joint revealed no cells or organisms on gram stain and no growth with culture.

Contrast enhanced CT of the abdomen and pelvis was obtained which revealed a large right iliopsoas abscess (figure 2) with fistulous communication to the distal small bowel as well as fistulization between the iliopsoas abscess and the iliopsoas bursa. Positive oral contrast material and air are seen in the psoas abscess, with opacification of the fistulous tract (figure 3) to the right iliopsoas bursa (figure 4)

that also filled with air and oral contrast.

The patient was admitted for antibiotic therapy and CT guided drainage catheter placement within the iliopsoas abscess. This was performed the day following presentation. Aspiration of the abscess revealed a purulent polymicrobial fluid with isolates of two morphotypes of *Klebsiella pneumoniae*, *Enterococcus faecium*, and *Candida albicans*. The patient was treated with intravenous antibiotics, and total parenteral nutrition to provide bowel rest, and CT guided percutaneous drainage.

Medical management failed and on hospital day #18 the patient was taken to the operating room for drainage of the iliopsoas abscess, ileocolic resection and end ileostomy formation. The origin of the fistula to the iliopsoas abscess was identified as a defect in the distal ileum, just proximal to the ileocolic anastomosis.

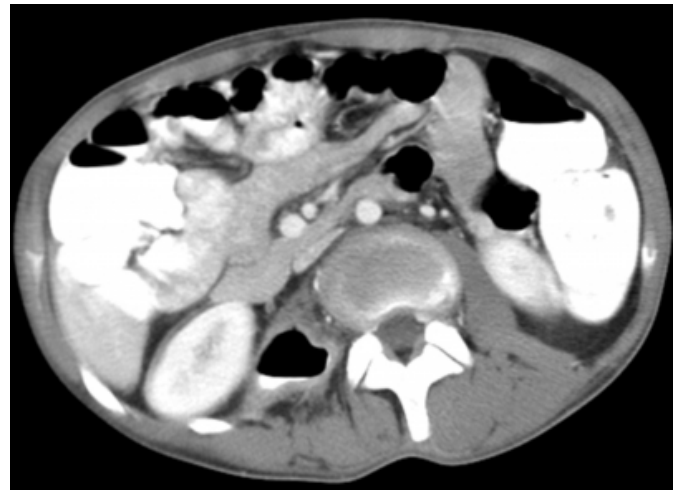
The patient recovered and had takedown of her ileostomy five months later.

CT of the abdomen and pelvis at the time of the ileostomy takedown showed minimal residual inflammatory/infectious changes within the right iliopsoas muscle bursa.

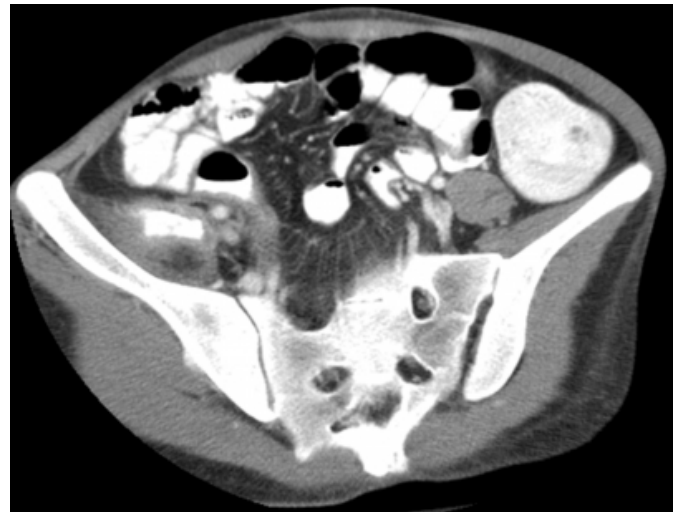
**Figure 1**



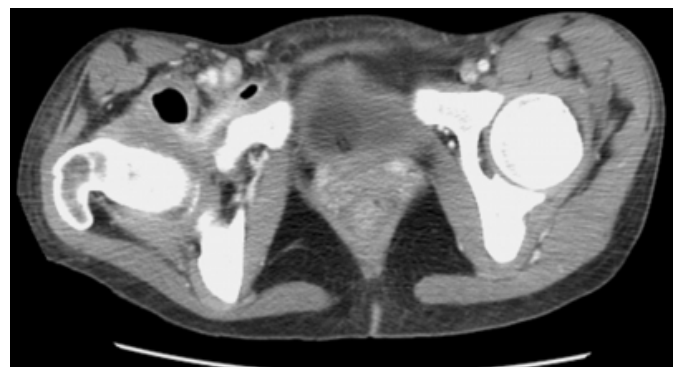
**Figure 2**



**Figure 3**



**Figure 4**



## **DISCUSSION**

Crohn's disease is a transmural inflammatory bowel disease frequently complicated by bowel obstruction, stricture, fistula and abscess formation. The terminal ileum and colon

are frequently affected, and may appear as thickened loops of bowel secondary to fibrosis and inflammatory infiltrates [1,2]. Discontinuous bowel involvement or "skip lesion" are typical. The etiology of Crohn's disease is unknown, but immunologic, genetic, infectious, psychogenic and even dietary causes have been considered, but not proven as causative factors [2]. It is more common in younger patients, with peak incidence of onset in the 20s

Frequently, exacerbations of Crohn's can be complicated by stricture, bowel obstruction, abscess, or fistula formation. CT has become a mainstay in diagnosing these complications of Crohn's disease. Fistula formation is common affecting between 20 and 40 % of Crohn's patients, peri-anal fistulas account for 54 % of fistulas, and entero-enteric account for 24 % of fistulas [3]. Most fistulas or abscess cavities require subsequent surgical intervention. Intra-abdominal and/or intra-muscular abscess formation occurs in 15-30% of Crohn's patients. CT guided abscess drainage has become the first line of treatment of these abscesses either as definitive therapy, or as a temporizing measure to allow for a less invasive subsequent surgical procedure [5,6].

This case is unusual in that complications from Crohn's disease rarely present as hip pain, but rather as abdominal complaints. Also, iliopsoas bursitis is a rare but known cause of hip pain, it usually is associated with hip joint pathology, such as degenerative or inflammatory conditions like

rheumatoid arthritis. Our patient had no prior history of hip joint disease. Septic iliopsoas bursitis is uncommon, but typically occurs in the setting of a septic hip joint, rather than as a complication from Crohn's disease[7].

Crohn's disease is complex chronic illness with many potential complications, where treatment planning is dependent on the detection and evaluation of these complications. Cross-sectional imaging now plays an integral role in the evaluation and treatment of Crohn's patients, as illustrated by this interesting case of septic iliopsoas bursitis.

### **References**

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