

Case Report

Ischiorectal abscess with retroperitoneal extension: masquerading as an appendicular abscess

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Received: 23 August 2025

Accepted: 19 September 2025

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ABSTRACT

The occurrence of a retroperitoneal abscess as an extension of ischiorectal abscess is exceedingly rare. It's presentation may be late or atypical. Here, we present a case report of a 27-year-old male who developed an ischiorectal abscess with late symptoms of retroperitoneal spread. Retroperitoneal extension was diagnosed radiologically following complaints of right iliac fossa pain and loose motions. Early surgical management was performed successfully.

Keywords: Ischiorectal abscess, Perianal, Retroperitoneal infection, Retroperitoneal spread

INTRODUCTION

There is no universally reported percentage for retroperitoneal extension of ischiorectal abscess, but it is regarded as a rare yet serious complication. Risk factors for ischiorectal abscesses to spread retroperitoneally include being the receptive partner, diabetes, IBDs such as Crohn's disease or ulcerative colitis, anal sex, cigarette smoking, diverticulitis, chronic diarrhea and constipation, colitis (inflammation of the colon), often due to an infection, pelvic inflammatory disease, pregnancy, cancer, certain immune-suppressing medications, radiation therapy. Retroperitoneal abscesses, which are uncommon, are typically caused by infections originating from within or near the retroperitoneal space, including the kidneys, gastrointestinal tract, or spine.¹ Differential diagnosis for right retroperitoneal abscess can be pyelonephritis, duodenal perforations or infections of the bowel (e.g., appendicitis, diverticulitis, Crohn's disease), pancreatitis, psoas abscess, bloodstream infections, tuberculosis. Uncommon causes: ischiorectal abscess extension. The patient can present with symptoms of

fever, abdominal or flank pain. Constitutional symptoms like malaise, fatigue, weight loss, and decreased appetite are common. Gastrointestinal symptoms like Nause, vomiting, diarrhea, or constipation can occur. Other symptoms can be subcutaneous edema, abdominal distension, pain in flexion of hip due to the involvement of psoas muscle. We present a case of ischiorectal abscess with retroperitoneal extension, in young male manifesting late symptoms. The condition was diagnosed 24 hours after initial management of the ischiorectal abscess. The patient had no history of substance use, comorbidities or any immunocompromised state.

CASE REPORT

A 27-year-old male patient came with chief complaints of perianal swelling, pain with painful defecation since 1 week. Fever with chills and complaints of inability to pass stools since the last 3 days. He had no comorbidities or significant family history. On examination, the patient had a temperature of 102°F on admission and a pulse rate of 96 beats/min and a blood pressure of

110/60 mmHg. Physical examination revealed perianal swelling of approximately 5×5 cm, which was red and tender on palpation, painful perirectal examination. On per abdominal examination no swelling or redness or signs of inflammation in right groin or inguinal region. Further evaluation included laboratory testing, which revealed evidence of leukocytosis with a total leukocyte count of 19,000, with all other blood parameters being unremarkable. For which incision and drainage of ischiorectal abscess done under spinal anesthesia. The procedure was uneventful and oral intake started postoperatively in 8 hours. Within 24 hr postoperatively patient started complaining of pain in the abdomen in the right iliac fossa with complaints of loose motions. A computed tomography scan of the abdomen and pelvis was done on an emergency basis. A computed tomography scan of the abdomen and pelvis suggestive of multiple air pockets with surrounding fat stranding, edema and a few small ill-defined hypodense collection in ischioanal fossa, Ischiorectal fossa, right lateral mesorectal region, presacral region, right lateral extra peritoneal space and right posterior para renal space, the largest collection measures 4.2×3.5×2.7 cm (volume ~ 20 cc). A few ill-defined air-filled and hypodense tracts are noted in the perianal region (Figures 1-3).



Figure 1: Coronal section of CT (abdomen+pelvis) suggestive of ischiorectal abscess extend to right retroperitoneal space with air foci with in it.

Mild enhancing thickening of mesorectal, right anterior para renal, posterior para renal, lateroconal fasciae and right lateral reflection of peritoneum is seen (Figure 1). Subsequently, the patient underwent emergency exploratory laparotomy under general anaesthesia. Appendix was not seen, approximately 150 ml of shaggy, purulent, foul smelling with septated collection was

observed originating from retrorectal plane and extending along the caecum, ascending colon up to the hepatic flexure of colon. No rent was seen in the base of caecum. The source of retroperitoneal abscess was still doubtful so terminal ileum-loop ileostomy was done. The retroperitoneal abscess cavity was communicating with the ischiorectal abscess cavity. Warm saline wash was administered. An abdominal drain was placed in the retro-peritoneal plane. Broad-spectrum antimicrobial therapy was initiated. As the culture report suggested, no bacterial growth. The patient started with an injection of piperacillin-tazobactam 4.5 gm twice daily and injection Metronidazole 500 mg thrice daily with adequate analgesia for a total duration of seven days. The patient was discharged after a 10-day postoperative period. On follow-up after two weeks. The patient is presented with healthy wound in the perianal region with granulation tissue and a healed suture line.



Figure 2: Axial section of CT (abdomen+pelvis) suggestive of ischiorectal abscess with air foci.



Figure 3: Axial section of CT (abdomen+pelvis) suggestive of right retroperitoneal abscess with air foci with in it.

DISCUSSION

Retroperitoneal abscess occurs more frequently in males, with peak incidence in the 6th decade of life.¹ In the present case, retroperitoneal infection was observed in a very young male. The most widely accepted theory regarding the pathophysiology of ischiorectal abscess is the cryptoglandular theory, obstruction of anal gland ducts leads to stasis, bacterial overgrowth, and ultimately

abscess formation in intersphincteric space. These abscesses may extend caudally to the perianal abscess or across the external sphincter into the ischioanal fossa. The least common site of spread is cephalad in intersphincteric space or supralelevator space or in the submucosal plane. The classification of anorectal abscesses based on their location includes perianal (60%), ischioanal (20%), supralelevator and intersphincteric (5%), and submucosal (<1%), with perianal abscesses being the most prevalent.² Anorectal abscess is commonly associated with immunocompromised conditions such as chronic alcohol intake, Crohn's disease, diabetes mellitus, tuberculosis and hidradenitis suppurativa, etc.² In our case scenario, the patient had no comorbidities. Because of anatomical features of retroperitoneal fossa, such abscesses are often overlooked and may subsequently spread or extend into retroperitoneal space or extend into the anterior thigh beneath the fascia iliaca.³ In contrast to the intraperitoneal cavity, the retroperitoneal space mounts show a relatively weaker inflammatory response to bacterial contamination. Consequently, retroperitoneal abscesses often present with a more insidious, asymptomatic and chronic course, making both diagnosis and treatment challenging in several aspects.^{4,5} Abdominal pain is reported in the majority of patients (about 86%) with extraperitoneal spreading abscess.⁶ In the present case, the patient presented with delayed symptoms of retroperitoneal abscess. The therapeutic option varied, with several approaches described in the literature. Percutaneous intersphincteric drainage, though sometimes attempted for limited supralelevator abscesses, remains technically demanding and fluoroscopic guidance often fails to achieve satisfactory results, thereby increasing the risk of persistent sepsis.⁷ In the literature, a reported case of ischioanal horseshoe abscess with anterolateral extraperitoneal extension was managed by open drainage and canalization via the ischioanal fossa through an abdominal incision, along with diversion loop colostomy with fistulotomy performed in a single operation.⁸ In our case report, patient had ischioanal abscess with right retroperitoneal extension. The exact source of the abscess was unclear, raising the differential diagnosis of either extension from the ischioanal abscess or a perforated gangrenous appendix. Which was managed by exploratory laparotomy with terminal ileum-loop ileostomy.

CONCLUSION

The case of ischioanal abscess with retroperitoneal abscess extension is a rare condition. Ischioanal abscess

with retroperitoneal extension can present with atypical symptoms. A high index of suspicion for retroperitoneal extension should always be considered and evaluated radiologically. Treatment should be initiated as early as possible, since this patient age at risk of developing septic shock.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Aher KD, Gadhire M, Jain N, Salunkhe P. Ischioanal abscess with retroperitoneal extension: masquerading as an appendicular abscess. Int Surg J 2025;12:1886–8.