Case Report

Supralevator Abscess of unknown origin: A Case Report

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Abstract
Anorectal abscesses are commonly encountered in clinical surgical practice. These abscesses require surgical management. Supralevator abscesses are thought to originate either from an ischiorectal or intersphincteric abscess extension or from an intraperitoneal source. These abscesses are quite uncommon and present a difficult surgical problem. We present a case here of a 54-year-old male who consulted for severe tennesmus and peri rectal pain since 2 months.

Keywords: Anorectal abscesses, supralevator abscess, ischiorectal abscess, supralevator space

1. Introduction
Abscesses may commonly occur in the Anorectal area. Anorectal abscesses seem to be most commonly found in males (1.76:1) in their third through fifth decades, with risk factors including foreign bodies, malignancy, trauma, tuberculosis, actinomycosis, leukemia, postoperative infection, inflammatory bowel disease, and simple skin infections. Anorectal abscesses are classified according to their location. Most commonly, these occur in the perianal region (44.8%), followed by intermuscular (28%), ischiorectal (12.8%) and supralevator abscesses (3.6%).

2. Case Report
The patient was a 54-year-old male who presented with severe tennesmus and peri rectal pain since 2 months. He consulted two general surgeons for same and was given antibiotics but was not relieved. There was history of fever. His past medical history was insignificant. On physical examination, the patient was afebrile with stable vitals. His abdomen was soft, nontender and no palpable lump. No perianal bulge or Redness or Fistula was present. Rectal examination showed good sphincter tone without any purulent drainage. Two tender swellings were present at in supralevator area of the rectum at the 10 o’clock and 2 o’clock position. MRI (Magnetic Resonance Imaging) was performed, showing inflammatory mass lesions in right and left supralevator area which was confirmed with biopsy as a large right-sided abscess (Figure 1). Consent about incontinence and s.o.s colostomy was taken and under spinal anesthesia he underwent incision and drainage – intra rectal radial incisions taken at 10 o’clock and 2 o’clock position.2-5cc of pus and thick shaggy material was removed from both sides and pus was sent for culture and sensitivity and wall biopsy was taken. Post-operative period was uneventful and discharged on 3rd post op day on antibiotics according to culture report. Biopsy was S/O Chronic Nonspecific inflammation. Dressing was continued for 2 weeks. On follow up after one month and 3 year patient was relieved of tennesmus and peri rectal pain during defecation. There was no incontinence even for flatus.

Figure 1: MRI Showing bilateral Abscess with large right sided abscess

3. Discussion
Anorectal abscesses are classified according to their location. Most commonly, these occur in the perianal region (44.8%), followed by intermuscular (28%), and ischiorectal (12.8%). Supralevator abscesses are relatively rare, occurring in only 3.6% of Anorectal abscesses. The primary event in abscess formation is infection of the anal glands located in the anal crypts along the dentate line. Afterwards, in a supralevator abscess, there is first involvement of the intersphincteric plane followed by upwards spread above the levator ani. However, supralevator abscesses are somewhat unique in that...
another potential source of the infection is from above, from a pelvic process such as appendicitis, gynecologic sepsis, diverticular disease or Crohn’s disease. Due to the abundant neural plexus tissue in the supralevator area, patients with these abscesses may have, in addition to anorectal pain and fever, presentations due to nervous involvement such as urinary retention or, rarely, sciatica. Furthermore, patients may present with only abdominal or pelvic complaints without any anorectal complaints or findings. Bilateral supralevator abscess are rare to present. The treatment for a supralevator abscess is drainage. Antibiotics alone are inadequate and failure of timely drainage can result in significant morbidity. If untreated, a supralevator abscess can invade adjacent spaces and tissues, forming a necrotizing infection or an anal fistula. Such a fistula may also result from surgical incision and drainage of an abscess, although care is taken to keep the drainage site as close to the anal sphincter complex as possible, so that if a fistula were to form, its tract would be shorter.

Supralevator abscess presents within the potential pelvirectal or supralevator space, which lies between the pelvic floor and the levator ani muscles. It is imperative that adequate drainage be performed, even if this necessitates aggressive surgical intervention. Although the supralevator abscess is rare, it requires much more aggressive treatment than other locations of Anorectal abscesses. If drained through levator ani muscle through ischiorectal fossa a complex fistula can result and recurrences are common. This leaves percutaneous drainage or open transabdominal drainage. We performed drainage intra rectally.

4. Conclusion

The diagnosis of supralevator abscess is not easily made clinically due to anatomical location and requires imaging. It is important to recognize the possibility of a supralevator abscess whenever a patient presents with rectal, pelvic, or back pain and signs of infective process. This case study demonstrates it is important to make sure that the abscess is properly managed upon first presentation. Percutaneous drainage with proper care not to disturb rectal sphincter must be considered as a first option, but if need further exploration to open drainage of the supralevator abscess can be considered. The open drainage has an inherent higher complication rate particularly in patients with multiple comorbidities.

References