

CONTINUING MEDICAL EDUCATION ΣΥΝΕΧΙΖΟΜΕΝΗ ΙΑΤΡΙΚΗ ΕΚΠΑΙΔΕΥΣΗ

Surgery Quiz – Case 7

A 52-year-old male was admitted to our department because of lasting severe lower abdominal pain radiating to the perineum. The patient history started one month ago when he was treated at another hospital due to abdominal pain and signs of sepsis (high fever and leucocytosis). A CT scan revealed significant inflammation the perirectal fat and thickening of the rectal wall. An exploratory laparoscopy was not diagnostic apart from finding some fluid in the lowed abdomen. The patient was subjected to an open appendectomy without further findings and negative histology for appendicitis. Postoperatively, the pain persisted and actually it became worse. Few days later, a sigmoidoscopy was performed, revealing a 4 cm long ulcer, 15 cm from the anal verge (fig. 1). The biopsies showed non specific inflammation. Another CT scan was performed, showing fluid in the right paracolic and retroceccal space, and circumferential fluid collection in the lower pararectal space. The finding was however ignored and conservative treatment with antibiotics was decided. The patient despite the persistence of pain was discharged with prescription of ciprofloxacin and analgesics.

On admission to our department he did not have fever. After obtaining a more detailed history he accepted that his symptoms began after the introduction of a foreign body to his rectum through the anus that most probably caused a penetrating trauma to the rectal wall, consistent with the endoscopic finding of the healed rectal ulcer. Physical examination revealed decreased respiratory sounds bilaterally and sinus tachycardia with no additional sounds. His abdomen was soft, non tender. On examination of his perineum a mild swelling on the left side was noticed and it was very tender over that area. Scrotum was normal. Digital examination revealed tenderness in all the perirectal space, especially on the left side. The pons pubis was also tender on palpation. There was no peripheral lymphadenopathy. Full blood count and blood biochemistry were unrevealing apart from a raised CRP (77 mg/L). He was HIV negative, suffering however from active hepatitis C. He underwent a pelvic MRI that showed a 10×15×16 cm perirectal abscess that tracts circumferentially within the ischiorectal fossa (fig. 2).

Surgical drainage of the abscess with a wide incision on the left perianal area was the next step (fig. 3) and a large amount of pus was drained. The pus was cultured but no bacteria were grown, probably because of the antibiotics he had received for more than one month!

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A long postoperative course followed with repeated surgical explorations and washing of the pelvic abscess cavity, until it was clean of pus and started reducing in size. He was discharged the 17th postoperative day after having a new CT scan that showed complete drainage of the ischiorectal abscess. He was followed up as an outpatient.

Three months later he had a new sigmoidoscopy that showed a polypoid projection with surrounding inflammation where the ulcer was. Biopsies were taken that were negative for malignancy (fig. 4).

Two months after the sigmoidoscopy, he presented again complaining for constipation since four days. An X-ray revealed a large foreign object in his rectum that had to be surgically removed by laparotomy and sigmoidectomy at another hospital (fig. 5).

Comment

Perirectal abscesses are most commonly cryptoglandular in origin. The anal glands that communicate with crypts at the lower end of the columns of Morgagni may become infected, when a crypt is occluded, trapping stool and bacteria within. Occlusion may follow impaction of vegetable matter or edema from trauma (firm stool or foreign body) or as a result of adjacent inflammatory process. If the crypt does not decompress into the anal canal, an abscess may develop in the intersphincteric plane. Other, less common, causes are iatrogenic, Crohn's disease, ulcerative colitis, infected perianal hematomas, anal fissures and hemorrhoids. Also, a perirectal abscess can result as a complication of tuberculosis, actinomycosis, chlamydiosis, carcinoma and radiation injury. Rectal injuries can also cause perirectal abscess due to escape of fecal matter into the perirectal space.

Trans-anal rectal injuries are uncommon. In the past, the majority of these injuries was caused in gunshots and especially in the 1st and 2nd world war. In our days a lot of such injuries are caused by industrial and car accidents. Nevertheless, injuries from foreign bodies due to trans-anal autoerotism have increased the last years.

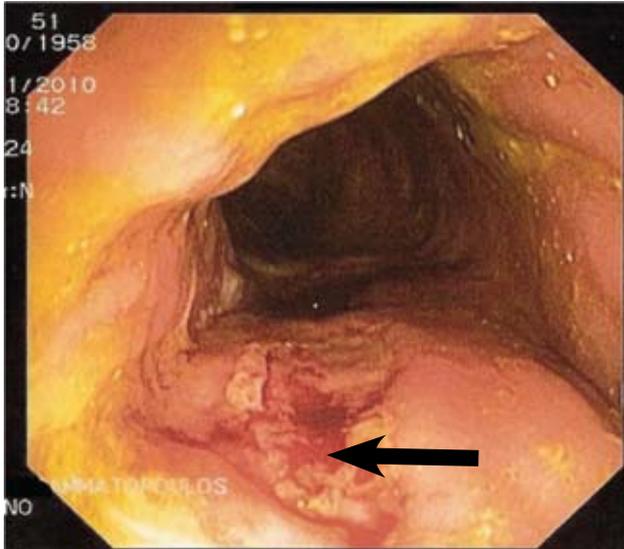


Figure 1. Sigmoidoscopy. Ulcer 15 cm from the anus, 4 cm long.

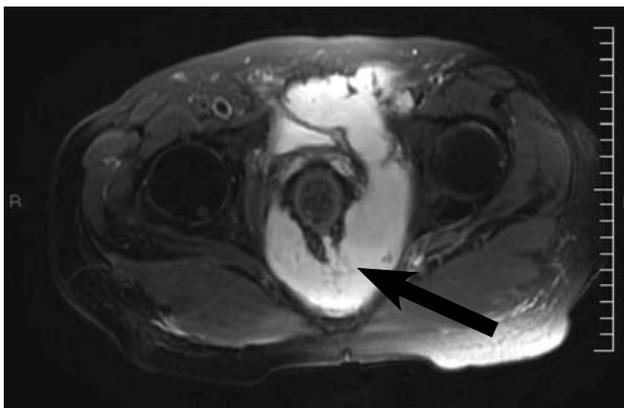


Figure 2. Large perirectal abscess that tracts circumferentially within the ischioanal fossa.

The diagnosis of rectal injury, caused by foreign bodies, is very often delayed because of the patients denial of to admit and describe how the injury happened. The majority of the medical staff faces these surgical problems frequently with humor, curiosity and less with the medical responsibility as they don't give a lot of emphasis to the gravity of the lesions and its heavy complications. Such injuries are dangerous and even lethal if left untreated, mainly due to septic complications.

The main clinical symptom is perianal pain that worsens at the sitting position. The abscesses that develop deep into the perirectal space (supralelevator and ischioanal space) are less painful but they are more frequently accompanied with high fever. They are usually discovered at digital examination or proctoscopy. Physical examination reveals a tender perianal or rectal mass. An apparently small abscess may extend high into the ischioanal or supralelevator space. Digital examination of the anus and lower rectum is essential in every patient!



Figure 3. Surgical drainage of the abscess.

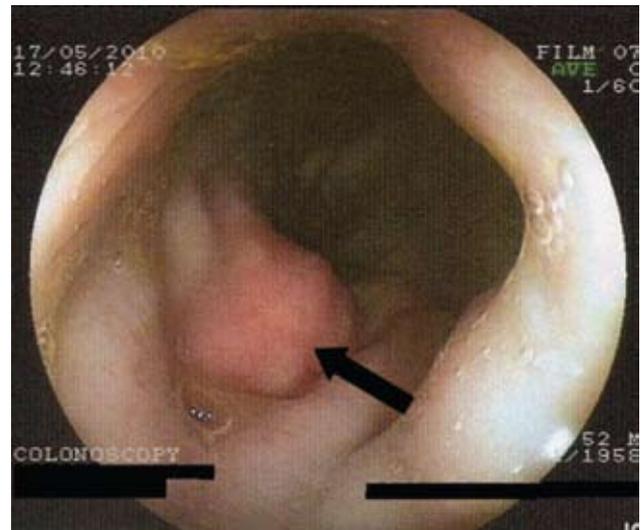


Figure 4. Sigmoidoscopy. Polypoid projection with surrounding inflammation and ulcer.

Transrectal ultrasound, CT and MRI may be useful in complicated or recurrent disease.

Treatment of perirectal abscesses should be always surgical combined with administration of appropriate antibiotics. They are best treated under anesthesia since the whole extent of the abscess must be evaluated and adequately drained. Immunocompromised patients and those with moderate compromise such as diabetes mellitus are more susceptible to develop necrotizing infection and urgent drainage is required.

In the case presented, the patient was misdiagnosed and underwent an unnecessary laparotomy and appendectomy due to inadequate physical examination (digital examination was not performed) and evaluation of his history. The trauma that occurred in his rectum due to the foreign body insertion closed spontaneously and the remaining of that trauma was the inflammatory ulcer that



Figure 5. X-ray. Foreign body into the rectum.

was discovered during sigmoidoscopy (after the appendicectomy due to his unresolved symptoms). This and the circumferential fluid collection in the lower perineal pararectal space that was discovered in the CT scan postoperatively were not evaluated and correlated with his clinical symptoms and as a result of this the patient was discharged with a huge perirectal abscess. Luckily he did not become

septic probably due to the large doses of antibiotics he received. Unfortunately, the patient continued his sexual habits, and a few months after the successful treatment of his perirectal abscess, he came back with a large foreign body impacted in the rectum, that had to be removed by a sigmoidectomy.

Foreign bodies inserted into the rectum to enhance sexual stimulation are a significant cause of rectal injuries. Treatment is often delayed because of the patient's denial – it's a very embarrassing and socially unacceptable incident. The diagnosis however should be suspected when a perirectal abscess is combined with the finding of rectal ulcer at rectoscopy. Prompt treatment is required; otherwise severe septic complications will follow.

References

1. DOHERTY MG. *Current diagnosis and treatment: Surgery*. 13th ed. McGraw Hill, Lange International Series, USA, 2006
2. EL-ASHAAL YI, AL-OLAMA AK, ABU-ZIDAN FM. Trans-anal rectal injuries. *Singapore Med J* 2008, 49:54–56
3. LOSANOFF JE, KJOSSEV KT. Rectal "oven mitt": The importance of considering a serious underlying injury. *J Emerg Med* 1999, 17:31–33
4. PAPAHRISTODOULOU A. Perirectal abscesses. In: Kostakis IA (ed) *Modern surgery*. Paschalidis Medical Publ, Athens, 2005

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