

Ischiorectal Abscess Secondary to an Ingested Foreign Body

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Received: 16 Oct 2020

Accepted: 02 Nov 2020

Published: 07 Nov 2020

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Citation:

Dhalla SS, Ischiorectal Abscess Secondary to an Ingested Foreign Body. American Journal of Surgery and Clinical Case Reports. 2020; 2(2): 1-3.

1. Abstract

Peri-anal abscesses are a common surgical problem, approximately 90% of cases are the result of obstruction of the glandular crypts of the rectum/anus leading to infection and then abscess formation. Incision and drainage of these abscesses is key to their management. Foreign body ingestion is a common occurrence seen by surgeons. Less than 20% of ingested foreign bodies that are ingested will become impacted within the GI tract, the vast majority will pass without issue. Here we report a case of an ingested foreign body, a chicken bone, impacted in the anal canal leading to formation of an ischiorectal abscess.

2. Introduction

Peri-rectal abscesses are a common surgical problem, with about 90% of cases caused by obstruction of the glandular crypts of the rectum/anus leading to infection and abscess formation [1, 2]. Ingestion of a foreign body is a common problem seen by surgeons. More than 80% of foreign bodies ingested, will pass through the entirety of the GI tract without issue [3]. When they become impacted, common locations include the esophagus, pylorus, and ileocecal valve [3]. Of those that become impacted, less than 1% will require operative intervention [4]. There have been a few case reports of ingested foreign body impaction within the anal canal [5-7]. Here we report a case of an ingested foreign body, chicken bone, impacted in the anal canal leading to formation of an ischio-rectal abscess.

3. Case Description

A 59 year old male, presented to his local Emergency department

with significant rectal pain. He described pain Starting 4 days prior after having a bowel movement. He had no history of peri-anal disease or previous surgical procedures. In the three days prior to his presentation, he had experienced fever, severe rectal pain, progressive peri-anal swelling and purulent rectal discharge. His family physician noted erythema and fluctuance to his right buttock and arranged an ultrasound. The ultrasound demonstrated edema in the soft tissues measuring 2.6cm x 2cm with a small focus of gas, not amenable to drainage under ultrasound guidance (Figure 1).

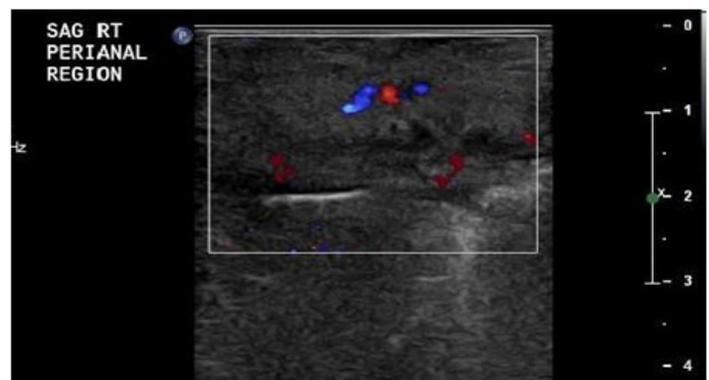


Figure 1: Ultrasound image acquired from the right perianal region demonstrating linear echogenicity consistent with foreign body, soft tissue edema and increased vascularity

The next day he was referred to our centre and underwent a CT scan, which demonstrated a peri-rectal abscess at the level of the low-rectum with air and inflammation extending into the right perirectal region (2.6 x 4.1 x 5cm). A radio-opaque linear foreign body (~3.4cm) extending from the rectum into the peri-rectal abscess was also noted (Figure 2).



Figure 2A, Coronal B: Axial CT images demonstrate linear hyperdensity consistent with a foreign body crossing the anal canal on the right, terminating in the perianal space with associated gas collection and soft tissue edema.

On examination, he was in some distress, having difficulty sitting, but vital signs were within normal limits. His white blood cell count remained normal at $9.8 \times 10^9/L$. On inspection, he had swelling to the right peri-anal region with foul smelling purulent drainage. Digital rectal examination revealed a sharp tip of a foreign body within the right lateral rectal sidewall.

The patient was started on intravenous antibiotics and taken to the operating room. Examination under general anesthetic, a large ischio-rectal abscess was found, measuring at least $5 \times 5 \text{cm}$, which was draining spontaneously.

Incision and drainage was carried out. A small $\sim 30 \text{mm} \times 5 \text{mm}$ bone fragment containing a joint was removed from the abscess cavity (Figure 3), following which the cavity was irrigated with saline. Given the size of the abscess cavity, a 10mm Jackson-Pratt drain was inserted through the right ischio-rectalspace. The rectal mucosa was reapproximated utilizing 2-0 Chromic catgut suture to obtain a watertight seal.



Figure 3: Bone fragment removed from abscess cavity

He was discharged home on post-operative day 3 with the drain in situ, as it was still draining serous sanguinous. Analgesics, along with antibiotics and stool softeners were prescribed. The patient was followed up and the drain discontinued after drainage subsided. A follow up colonoscopy was undertaken 6 weeks later, which demonstrated mucosal healing, with no evidence of underlying pathology or stenosis (Figure 4).

On further discussion with the patient, he was adamant about no previous ano-rectal procedures, trauma or any intentional insertion of a rectal foreign body. However, he did note a few weeks after the episode that he was taking the meat off a chicken and noted a similar appearing bone. He believes that he likely swallowed the small chicken bone inadvertently.

Unfortunately, he Presented several months later with evidence of an ischio-rectal fistula. This was treated with placement of a seton leading to complete resolution. He has been doing well since then, without any further issues.

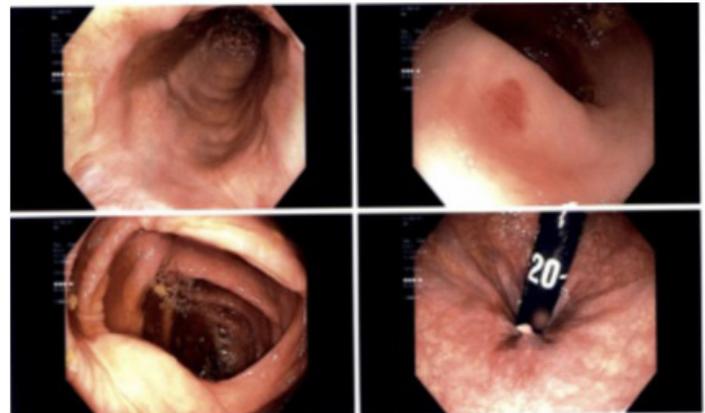


Figure 4: Follow up colonoscopy demonstrating mucosal healing on retroflexion

4. Discussion

Impaction of accidentally ingested bones is well documented throughout the aerodigestive tract, leading to several complications. Impaction within in the anal canal leading to the development of peri-rectal abscess has only been reported a few times via case reports in the literature [5–7]. It is thought that the foreign body becomes lodged in the anal canal, and with the force exerted by the canal during defecation, the sharp object becomes forced through the mucosa into the peri-anal tissue [5].

In our case report, the tip of the foreign body was palpable on digital rectal examination. However, depending on the size and location of the foreign body within the abscess cavity, the sensitivity is very poor [8]. One case in the literature documented the presence of foreign body noted on abdominal/

pelvic x-ray [5], the rest were discovered on careful digital examination [6, 8]. Additional imaging may be helpful to establish the presence of a foreign body pre-operatively, as in our case.

Overall, management of these abscesses is the same as other perianal abscesses of any origin. Incision and drainage results in rapid relief of symptoms and overall morbidity is minimal. However, it is necessary that the foreign body be removed in order to remove the nidus of infection and therefore meticulous examination is necessary with the aid of other diagnostic modalities in selected circumstances.

5. Conclusion

Peri-rectal abscesses are a common issue managed by surgeons, however, those caused by ingested foreign bodies are a rare occurrence. Physicians need to be cognizant of this potential underlying etiology, particularly in patients with predisposing factors (history of anal stenosis, previous anal surgery, prolonged history of peri-anal pain), as removal of the foreign body is key in treating these patients to prevent recurrent symptoms. CT scan and our ultrasound are useful adjuncts for successful management.

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