Case Report

An Unusual Cause of Perianal Sepsis Due to Ingested Fish Bone: Case Report and Review of the Literature

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Key Words
Perianal sepsis;
Fish bone

We present a rare case of a peri-anal abscess caused by an ingested fish bone. A 53-year-old man in good health, without underlying disease presented with progressive and painful peri-anal swelling for 5 days, associated with fever. Physical examination revealed erythema, swelling, and local tenderness on the left side of the anus, with extension to the perineum and opposite side of the anus. Abdominal CT scan showed a gas-forming abscess with infiltration into the perineal, perianal, perirectal, perivesical, and prevesical space, with soft-tissue swelling and hyperemic change. The right portion of the bulb/crura/corpus cavernosa and corpus spongiosum of the penis also was involved, compatible with Fournier gangrene. During incision and drainage, a 2.4 cm fish bone was found inside the abscess cavity. The patient recalled having eaten fish around one week prior to this admission. Ingestion of a sharp object can cause perforation of the gastrointestinal tract, not only the upper tract, but even the lower tract and anal canal. A high index of suspicion is needed in cases with a history of foreign body ingestion presenting with ischio-rectal abscess, to aid diagnosis and to prevent progression to Fournier gangrene.
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Ingested foreign body is a commonly encountered surgical condition. If the ingested foreign body is sharp, perforation of the gastrointestinal tract may occur. This case report presents a case of a rare cause of peri-anal abscess resulting from an ingested sharp foreign body.

Case Report

A 53-year-old man presented to our emergency department for progressive, painful anal swelling of 5 days duration, associated with fever. He did not recall any history of injury to the buttocks or peri-anal area, and had no recent history of abdominal pain. On physical examination, he had a fever of 38.4 °C. There was a tender, erythematous swelling over the left peri-anal region, at the left anterior position (patient's left side). There was no fluctuance, discharge, or ulceration. On digital rectal examination, there was left lateral rectal wall tenderness with extension to the anterior wall of the rectum. No fistula tract was palpated. There was obvious swelling of the scrotum, and tenderness of the penis and scrotum was noted on palpitation. Abdominal CT scan showed infiltration of a gas-forming abscess into the perineal, perianal, peri-

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rectal, perivesical, and prevesical space, with soft tissue swelling and hyperemic change. The right portion of the bulb/crura/corpus cavernosa and corpus spongiosum of the penis also was involved, compatible with Fournier gangrene (Fig. 1). Emergency incision and drainage was performed under spinal anaesthesia.

Intra-operatively, rigid sigmoidoscopy showed normal rectal mucosa, and no foreign body or internal opening. A vertical incision was made through the skin over the peri-anal swelling, and 20 ml of pus was released from the left ischio-rectal fossa. In addition, a 2.4 cm fish bone was found inside the abscess cavity, impinging on the rectal wall, but not penetrating the rectal mucosa (Fig. 2). The abscess cavity extended into the perineum, and crossed to the opposite side of the anus; however, the abscess cavity did not extend into the scrotum. At the same time, a surgical urologist was consulted intraoperatively for suspicion of an abscess of the scrotum and penis. Bilateral Gibson's incision was made, and necrotic tissue was removed.

Post-operatively, patient was asked specifically about a history of fish bone ingestion. He recalled having ingested a fish bone around one week prior to admission; however, he had not sought medical advice prior to this admission. He had not experienced any discomfort or abdominal pain during the past month until he experienced the painful peri-anal swelling, followed by fever. Post-operative recovery was smooth initially, and the wound was clean; however, the patient complained of lower abdominal pain with tenderness several days later. Abdominal sonography revealed an abscess beneath the rectus abdominus muscle. Two 10 Fr pigtail drainage catheters were inserted into the abscess cavity. The patient was discharged to home with a drainage catheter, and had daily dressing change and packing as an out-patient. The two pigtail catheters were removed one week later.

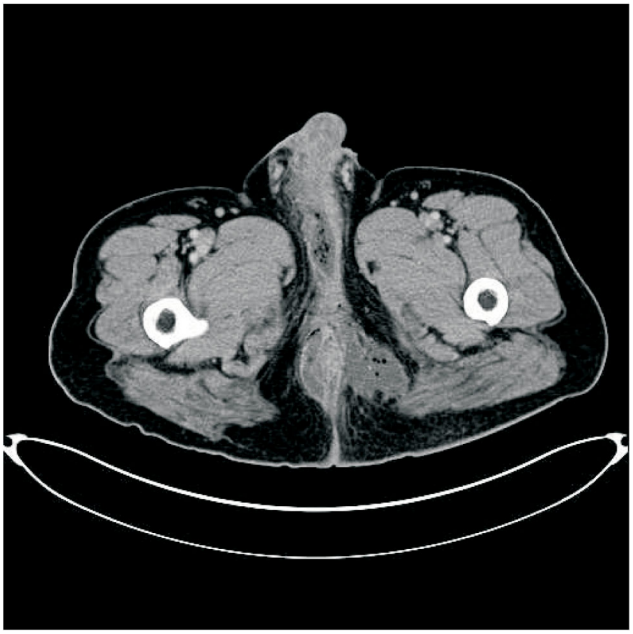

Fig. 1. Abdominal CT scan showed the location and extent of the abscess.

Discussion

Impacted foreign body in the anal canal is an unusual cause of perianal abscess, although several cases have been reported in the literature.[1-7] Although fish bone ingestion with resultant perianal abscess is a rare cause of perianal sepsis, this condition should be suspected when a patient with a recent history of foreign body ingestion presents with perianal sepsis. In our patient, the ingested fish bone passed through nearly the entire gastrointestinal tract, and reached the anal canal. The pain was caused by the impacted foreign body under the influence of contraction of the external anal sphincter. The high sphincter pressure in the anal canal during defecation forced the sharp fish bone through the anal wall into the ischio-rectal fossa, resulting in abscess formation and delayed presentation. History of prolonged pain can be associated with

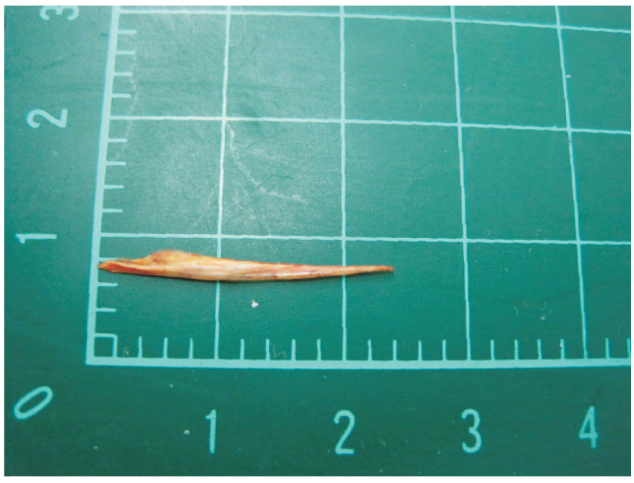

Fig. 2. The fish bone extracted during operation.

prolonged and neglected impaction, which leads to abscess formation.[7]

The diagnosis of a perianal abscess can be made by careful digital rectal examination and/or proctoscopy.[8] In our case, however, digital rectal examination failed to reveal the presence of a foreign body in the anal canal and lower rectum prior to the operation. Radiological investigation may be performed prior to operation to identify the nature and location of the foreign body.[3] In the acute setting of a perianal abscess, we perform computed tomography imaging; however, no obvious foreign body was found in the image prior to the operation. The benefit of CT scan before operation was to provide adequate information about the location and extent of the abscess. In our case, the CT scan showed a large area of infection with suspicion of Fournier gangrene. The uncommon occurrence of Fournier gangrene in health adults with no predisposing risk factors requires a high index of suspicion for this diagnosis when performing operation.

Intraoperatively, careful examination and adequate exposure helped to identify and remove the impacted foreign body. Consequently, we consulted a surgical urologist to evaluate the possibility of an abscess of the scrotum and penis. Adequate incision and drainage with the removal of the foreign body resulted in a cure, with immediate relief of pain. The patient was satisfied and there was minimal morbidity.

Several days postoperatively, the patient presented with lower abdominal pain. Abdominal sonography revealed an abscess deep to the rectus abdominus muscle of the lower abdomen. We inserted a pigtail catheter into the abscess cavity for drainage. By using this method, we were able to avoid extension of the incision wound from the perianal area to the scrotum and to the lower abdominal wall.

Conclusion

Ingestion of a sharp object can cause perforation of the gastrointestinal tract, not only the upper tract, but also the lower tract and anal canal. Impacted foreign body in the anal canal, although rare, may cause a perianal abscess. Digital rectal examination can often miss an impacted foreign body. Intraoperatively, however, careful palpation of the abscess and adequate exposure of the abscess cavity are the key manoeuvres to identify and subsequently remove the impacted foreign body.

References

1. Alawi H, Mohammed AS, Faiyza H. Ingested fish bone, unusual cause of perianal sepsis. *A Case Report Bahrain Medical Bulletin* 2001;23:98-9.
2. Delikoukis S, Zacharoulis D, Hatzitheofilou C. Perianal abscesses due to ingested foreign bodies. *Int J Clin Pract* 2005;59:856-7.
3. Cappuccio S, Mangraviti A, Paparo D. Perianal abscess caused by ingested foreign body Chirurgia 2002;15:161-2.
4. Nian-Song K, Dan-Ping Q. Cancer-like foreign-body in rectum wall: a case report. *World J Gastrointestinal Surgery* 2010;2:32-4.
5. Seow C, Leong AFPK, Goh HS. Acute anal pain due to ingested bone. *Int J Colorect Dis* 1991;6:212-3.
6. Gilbert PM. Multiple foreign bodies impacting in the rectum. *Br J Clin Pract* 1990;44:160.
7. Carlson GL, Ingram G. Acute anal pain and ingested foreign body impaction. *Br J Clin Pract* 1990;44:244-6.
8. Reddy SK, Griffith GS, Goldstein JA, et al. Toothpick impaction with localized sigmoid perforation: successful colonoscopic management. *Gastrointest Endosc* 1999;50: 708-9.

病例報告

誤食魚刺造成肛門膿瘍的罕見病例：病例報告及文獻回顧

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誤食的異物是一個經常遇到的手術狀況。如果誤食的異物是尖銳的，則可能發生消化道穿孔。本文報告一例罕見病例，因誤食魚刺引發肛門膿瘍而接受手術治療的病人。我們在此報告並回顧文獻，對於不尋常且罕見的肛門膿瘍，術前的電腦斷層診斷可以提供膿瘍感染範圍的臨床訊息，但未必能在影像上準斷出異物；因魚刺穿刺所造成的肛門膿瘍，須憑藉著詳細的術前病史詢問及術中仔細的觸診膿瘍腔室，方可找出鑲嵌的異物。適當的膿瘍切開引流和豬尾巴導管引流是一種可行的替代方法來治療複雜性肛門膿瘍。這種治療方式可以達到有效治療、控制感染、減少過長的傷口切口，並立即緩解疼痛。

關鍵詞 肛門膿瘍、魚刺。