

Retro Umbilical Abscess Mimicking Infected Urachal Cyst: A Rare Presentation from Migratory Fish Bone Ingestion

Enfekte Urakal Kist'i Taklit Eden Retro Umbilikal Apse: Göçmen Balık Kemiği Yutmasından Nadir Bir Sunum

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ABSTRACT

Foreign body ingestion, especially food bolus like a fishbone, is prevalent in the adult population, usually ingested accidentally with only a small percentage developing a complication. Once complications arises, it will have a wide variety of clinical manifestations. We present a case of a patient with an abdominal wall abscess resulting from migrating ingested fishbone that was treated with antibiotic therapy, drainage of the abscess, and removal of the foreign body. A 58-year-old gentleman presented to our hospital with chronic abdominal pain complaint from the right iliac fossa migrating to the umbilical region. His physical examination revealed swelling, redness, and tenderness over the umbilical region. Computed tomography showed a hypodense rim enhancing collection noted at the umbilical region with extension into the anterior peritoneal cavity with a thin linear dense structure within the collection measuring 4cm in length, likely representing a foreign body. He received antibiotic therapy and subsequently underwent abscess drainage and removal of a foreign body. He had an uneventful postoperative course, and follow up showed no recurrent. An abdominal wall abscess can arise from a complication of migratory fishbone ingestion. Unexplained abdominal wall abscess in an otherwise healthy individual should also raise suspicions of foreign body causing bowel perforation, and treatment should be tailored to the patient's presentation.

Keywords: Fish bone, abdominal wall abscess, umbilical abscess, foreign body ingestion

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ÖZET

Yabancı cisim yutulması, özellikle balık kılçığı gibi bolus gıda, yetişkin popülasyonda yaygındır, genellikle yanlışlıkla yutulur ve sadece küçük bir yüzde komplikasyon gelişir. Komplikasyonlar ortaya çıktığında, çok çeşitli klinik belirtilere sahip olacaktır. Yutulan balık kılçığının göç etmesi sonucu karın duvarı apsesi gelişen ve antibiyotik tedavisi, apsenin drenajı ve yabancı cismin çıkarılması ile tedavi edilen bir hastayı sunuyoruz. 58 yaşında beyefendi kronik karın ağrısı ile hastanemize başvurdu sağ iliak fossadan göbek bölgesine göç eden ağrı şikayeti. Fizik muayenesinde göbek bölgesinde şişlik, kızarıklık ve hassasiyet saptandı. Bilgisayarlı tomografi, göbek bölgesinde, ön periton boşluğuna uzanan, 4 cm uzunluğunda ince doğrusal yoğun bir yapı ile birlikte, muhtemelen bir yabancı cisim temsil eden, hipodens bir çerçeveyi güçlendiren bir koleksiyon gösterdi. Antibiyotik tedavisi aldı ve ardından apse drenajı ve yabancı bir cismin çıkarılması uygulandı. Ameliyat sonrası sorunsuz bir seyir izledi ve takibinde nüks görülmedi. Karın duvarı apsesi, göçmen balık kılçığı yutulmasının bir komplikasyonundan kaynaklanabilir. Aksi halde sağlıklı bir bireyde açıklanamayan karın duvarı apsesi, bağırsak perforasyonuna neden olan yabancı cisim şüphesini de uyandırmalı ve tedavi hastanın durumuna göre ayarlanmalıdır.

Anahtar Sözcükler: Balık kılçığı, karın duvarı apsesi, göbek apsesi, yabancı cisim yutulması

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INTRODUCTION

Foreign body ingestion or food bolus impactions are quite common in clinical practice. It more frequently occurs in the pediatric population than in adults (1). It is usually an accidental occurrence in the adult population and often unrecognized. About 85 percent of cases are generally related to dietary in origin, such as fish or chicken bone, or bone fragment (2). Approximately 80-90 percent of cases, ingested foreign body will pass spontaneously without consequences.

In comparison, 10-20 percent required endoscopic intervention, and less than 1% will need surgical intervention for foreign body extraction or treatment of the complication (1). We report a patient who presented with an anterior abdominal wall abscess that resulted from the migration of ingested fish bone likely from the transverse colon.

CASE REPORT

A 58-year-old gentleman presented with a two-week history of abdominal pain initially started at the right iliac fossa region. It was intermittent which partly reduced with an oral analgesic. Subsequently, the pain migrated to the central abdomen. He also noted swelling over the umbilical region that was progressively increasing in size associated with skin erythema for four days. He denied any fever, vomiting, or diarrhea. He does not have any symptoms suggestive of urinary tract infection, no recent traveling, or taking outside food. He had a history of foreign body insertion at the back of his body for traditional treatment of his back pain many years ago but denied any foreign body insertion anteriorly.

Upon examination of the abdomen, there was tenderness, swelling, and redness at the periumbilical region with a vague mass in the retro-umbilical region. His vital signs were unremarkable. A laboratory examination revealed an increase in white cell count $17.3 \times 10^9/L$ and C - reactive protein 20.0 mg/dL. Except for this finding, the rest of the investigations revealed normal values.

An initial diagnosis of an infected urachal cyst was made. An ultrasound abdomen shows ill-defined heterogeneous hypoechoic subcutaneous collection posterior to the umbilicus, measuring 3.2x2.9x4.5cm (APxWxCC). It was extending inferoposteriorly into the abdomen. A focal hypoechoic area seen within the abdomen at the site of extension is likely to represent inflamed omentum. No communication with the urinary bladder's dome was noted. Subsequent computed tomography of the abdomen revealed hypodense rim enhancing collection noted at the umbilical region with extension into the retro umbilical/anterior intraperitoneal cavity, measuring 4.3x6.9x3.6cm (APxWxCC). There was a thin linear dense structure within the collection, measuring about 4 cm in length, likely to represent a foreign body. It was associated with surrounding mesenteric fat streakiness but there was a clear fat plane with the small bowel loops immediately posterior to the collection. The collection was located immediately inferior to the transverse colon. No connection is seen between the collection and the urinary bladder.

The diagnosis was changed to anterior abdominal abscess secondary to a foreign body. Incision and drainage were performed under general anesthesia over the periumbilical area and led to removing a 4.5cm fishbone from the abscess cavity. No connection was noted between the abscess cavities to the intraperitoneal cavity. The abdominal abscess culture yielded mixed growth of 3 different organisms, with two at least two types of gram-positive—no predominant colony. The patient received a five-day course of antibiotic, Amoxicillin / Clavulanic acid. The postoperative course was uneventful. The scar from the abscess drainage healed well, and he did not have any recurrent symptoms after surgery.



Figure 1: Computed tomography of abdomen show axial view thin linear dense structure within the collection, measuring about 4 cm in length.

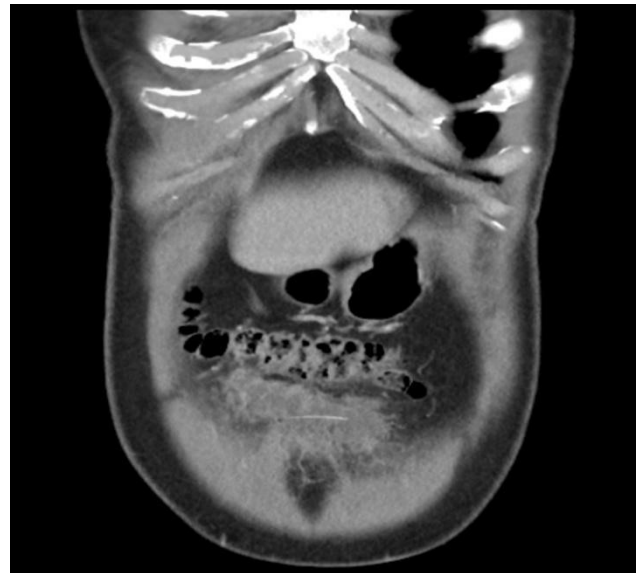


Figure 2: Computed tomography of abdomen show coronal view showing the foreign body within collection.



Figure 3: Image showing image of fish bone after successful retrieval from the anterior abdominal wall collection.

DISCUSSION

This case demonstrates an infrequent presentation of fishbone causing colonic perforation and the need to consider a foreign body's possibility as a pathological cause of unexplained abdominal wall abscess in an otherwise healthy individual.

Accidental ingestion of food bolus like fishbone is common, but it will commonly pass through the gastrointestinal tract uneventfully. The perforation of the gastrointestinal tract is rare and accounts for less than 1% of patients (3). The foreign body's perforation can occur anywhere in the gastrointestinal tract, but it usually occurs in the region of acute angulation, such as ileocecum junction or rectosigmoid junction (3). Occasionally, a foreign body can perforate a hernia sac, appendix, or Meckel's diverticulum (4).

The gastrointestinal tract's foreign body perforation has a broad spectrum of clinical presentation from acute peritonitis, abdominal wall tumor or abscess, or intraabdominal wall tumor or abscess formation (4)(5). This wide variety of presentations makes clinical diagnosis difficult and challenging, especially without a definite foreign body ingestion history. Ingestion of fish bones may be forgotten, and the onset of symptoms may be far from the incident like previously reported cases of abscess formation due to fishbone ingestion; most patients denied any history of fishbone ingestion (6)(7). Thus, a history of foreign body ingestion is rarely obtained preoperatively like our patient.

The use of plain radiographs in the detection of dietary foreign body perforation is dubious. Studies by Goh et al. demonstrate that the bone's degree of opacities depends on fish species (8). It further interferes with extensive soft tissue masses or fluid surrounding the bone obscures its minimal calcium contents (9). A study by Ngan et al. of 358 patients with fishbone ingestion shows that plain radiograph only had 32% sensitivity (10). The pneumoperitoneum presence is also uncommon in foreign body perforation of the gastrointestinal tract (8)(9). The hypothesis behind it due to perforation occurs due to the gradual movement of the foreign body through the intestinal wall, allowing the bowel to seal off slowly over time, subsequently limiting the passage of intraluminal air into the peritoneal cavity(11). The inflammatory area subsequently will adhere to the abdominal wall that was gradually migrating the foreign body to the path of least resistance, aided by intraabdominal pressure driving it toward the skin (7).

Computed tomography scans had a potential role in detecting nonmetallic foreign body perforation. The computed tomography finding could identify the fishbone as a linear calcified lesion surrounded by an area of inflammation (8). The drawback of computed tomography scan relates to a lack of awareness from the observer, the thickness of computed tomography slices, and foreign body orientation with respect to the computed tomography slices (8). A computed tomography scan helped detect the presence of a foreign body in our patient.

The management of foreign body perforation depends on patient presentation, and complication which arises from it. A few cases of abdominal wall abscess due to foreign body perforation have been reported, where drainage of abscess and retrieval of the foreign body is done similar to our cases (7) (12)(13). Takayuki et al. reported a successful conservative approach with antibiotics as a treatment of abdominal abscess due to the terminal ileum's perforation caused by a fishbone (14). The treatment approach should be tailored to what best for the patient.

CONCLUSION

Foreign body ingestion causing colonic perforation is rare; making a preoperative diagnosis difficult with a rarely suggestive preoperative history and wide clinical manifestation. The presence of unexplained intraabdominal or abdominal wall abscess, a foreign body colonic perforation, should be considered by the attending physician.

Conflict of interest

No conflict of interest was declared by the authors.

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