



Fish Bone-related Intra-abdominal Abscess Treated With Antibiotic Therapy

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A 72-year-old Japanese male patient presented to the gastroenterology department with a 2-week history of right lower quadrant (RLQ) abdominal pain. He had well-controlled type 2 diabetes mellitus (hemoglobin A1c of 6.2%). Vital signs were normal. His abdomen was soft with mild tenderness in the RLQ. Laboratory evaluation showed elevated a leucocyte count and a serum C-reactive protein (CRP) level at 13,100 cells/ μ L (normal range 3500–8500) and 14.31 mg/dL (normal value <0.30), respectively. Contrast-enhanced computed tomography (CT) revealed a small amount of ascites and an 84 x 66 mm mass containing a linear opacity in the left upper abdominal cavity (Figure 1). No evidence was observed for free intra-abdominal air. Esophagogastroduodenoscopy and colonoscopy showed no abnormality. Serum tumor markers, including carcinoembryonic antigen, carbohydrate antigen 19-9, DUPAN-2, and Span-1,

were within the normal range. The patient denied any history of fish bone ingestion. However, his family reported that he had eaten cod baked in foil several days before the presentation. Therefore, a diagnosis of the fish bone-related intra-abdominal abscess was made. The patient's condition was stable, thus parenteral nutrition and antibiotic therapy were administered. The abdominal pain disappeared within 2 days after the initiation of intravenous sulbactam/cefoperazone (SBT/CPZ) (1 g twice daily). The leucocyte counts and serum CRP levels also decreased immediately. Oral intake was restarted 7 days later, and oral levofloxacin (500 mg once daily) was prescribed as an alternative to SBT/CPZ. At the 1-month follow-up, CT confirmed the resolution of ascites and the intra-abdominal abscess despite the retained fish bone that measures approximately 2 cm (Figure 2); thus, the antibiotic therapy was completed.

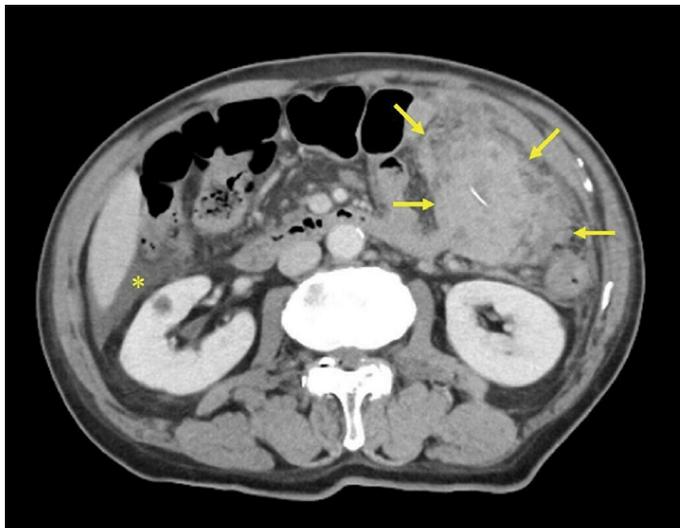


FIG. 1. Contrast-enhanced computed tomography image showing a small amount of ascites (asterisk) and an 84 x 66 mm mass containing a linear opacity in the left upper abdominal cavity (arrows).



FIG. 2. Follow-up computed tomography image showing the resolution of ascites and the intra-abdominal abscess despite the retention of the fish bone, measuring approximately 2 cm (arrow).



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Accidental foreign body ingestion is common in clinical practice. The majority of the ingested foreign bodies pass through the gastrointestinal (GI) tract without any complications.¹ Fish bones are the most common objects that cause bowel perforation due to their sharpness.^{2,3} Intra-abdominal abscess can result from bowel perforation.² The main symptoms include acute or chronic abdominal pain and fever, which are non-specific.^{2,4} Obtaining a history of fish bone ingestion is difficult since most patients tend to forget the ingestion of fish bones.^{3,5} Fish bones are usually invisible on radiography due to their radiopacity.³ Fish bone perforation typically appears on CT as a linear calcified lesion surrounded by an area of inflammation.³ CT is useful in diagnosing fish bone perforation of the GI tract; however, the accuracy of CT is limited due to insufficient observer awareness.³ An intra-abdominal abscess secondary to bowel perforation commonly requires surgical intervention, such as drainage and foreign body removal.²

In the present case, abdominal pain in the left upper quadrant was not observed. The patient's chief complaint was considered as a referred pain. Moreover, a large abscess had completely healed by

antibiotic therapy without surgical intervention. Physicians should be cautious of a recurrent abscess due to the retained fish bone, and conservative treatment may be suitable for patients with mild symptoms.

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