Liver Abscess due to Enterohepatic Migration of Fish Bone


Abstract
Liver abscess due to accidentally ingested fish bone is extremely rare; only 30 cases have been described in the literature. We are reporting a 46-year-old female presenting with liver abscess due to enterohepatic migration of accidentally ingested fish bone.

Key words: Liver abscess, enterohepatic migration, fish bone

Introduction:
Gastrointestinal foreign bodies are encountered quite commonly in clinical practice. In most cases, these foreign bodies pass spontaneously with stool; but in some cases endoscopic removal is required. Liver abscess due to an accidentally ingested fish bone is exceedingly rare; only 30 cases have been described in the literature.1 So, fish bone-induced liver abscess poses a diagnostic challenge to the physicians. We are reporting a case of liver abscess due to enterohepatic migration of fish bone through the first part of duodenum.

Case report
Amena Begum, 46 year-old female, presented with 15 days high grade fever without chills and rigors and upper abdominal pain. She had no viral prodrome. She had no history of alcohol intake or drug abuse. On systemic examination, mild tenderness on right hypochondriac region was noted. Complete blood count revealed leukocytosis (WBC-21500; 80% neutrophils), and normal haemoglobin and platelet counts. Serum bilirubin and liver enzymes were normal. Her serum lipase, amylase, urinary amylase and renal function tests were normal. Ultrasonography of the abdomen (figure 1) as reported as a left lobe liver abscess measuring 5.5 cmx4.4 cm with evidence of linear calcification, normal gallbladder and normal biliary ducts. She was treated by ciprofloxacin and metronidazole intravenously for 10 days and her fever subsided.

After one month, she presented again with a 10 days history of abdominal pain and high grade fever. Physical examinations were normal except mild tenderness on right hypochondriac region. Blood counts again showed a leukocytosis (16,700 with 87.6% neutrophils). Her repeat liver function tests and renal function tests were normal. Plain X-ray of the abdomen in erect posture revealed no abnormality. A CT scan (figure 2) of abdomen showed a thick rim enhancing hypo dense lesion

1 Assistant Professor, Department of Medicine, Rajshahi Medical College, Bangladesh.
2 Associate Professor, Department of Medicine, Rajshahi Medical College, Bangladesh.
3 Assistant Professor, Department of Gastroenterology, Rajshahi Medical College, Bangladesh.
4 Professor, Department of Radiology and Imaging, Rajshahi Medical College, Bangladesh.
5 Assistant Professor, Department of Radiology and Imaging, Rajshahi Medical College, Bangladesh.
6 Associate Professor, Department of Surgery, Rajshahi Medical College, Bangladesh.
of size about 3x2 cm in the left lobe of liver and a
straight linear radio dense structure of length about
2.5 cm is seen in the inferior margin of the lesion
having contact with the thick walled first part of
duodenum. The biliary ducts and gallbladder were
unremarkable. The spleen, pancreas, both kidneys
and adrenals were normal. Upper GI endoscopy
was then done which showed normal stomach and
duodenum. The findings of CT abdomen were
consistent with a liver abscess with the presence of
a foreign boy in the abscess cavity. On query, our
patient could not recall ingesting a fish bone.

She was referred to the Department of Surgery of
Rajshahi Medical College Hospital. Laparotomy
was done, the abscess was drained and a 2.5 cm
long fish bone was removed (figure 3) from a
partially healed hepato-duodenal fistula
communicating between first part of duodenum and
liver abscess cavity. The postoperative period was
uneventful. She was discharged with cefixime and
metronidazole for 10 days. She was asymptomatic
when she came for follow up one month later.

Discussion
The first case of liver abscess secondary to
gastrointestinal tract perforation by a foreign body
was described by Lambert in 1898. The diagnosis
of fish bone induced liver abscess is often
challenging because history of fish bone ingestion
is often absent, fish bones are not readily seen in
plain X-Ray abdomen, sonologist often dismisses
the fish bone as an artefact and endoscopy also
fails to visualize the fish bone because of
enterohepatic migration. CT scan is the best tool to
visualize and localize the fish bone. Fish bone
induced liver abscess can be managed
conservatively with antibiotics alone where fish
bone is left in situ or the fish bone can be
removed by image guided percutaneous
transhepatic route, laparoscopy or laparotomy. In
our case, laparotomy was chosen because of no
prior experience of image guided percutaneous
transhepatic removal of fish bone and limited
experience with laparoscopic foreign body
removal. Most cases of fish bone induced liver
abscess recover completely once the diagnosis is
made, abscess is treated appropriately and the fish bone is removed.

**Conclusion**

To diagnose recurrent liver abscess due to foreign body is complicated by the lack of specific symptoms and low index of clinical suspicion. So, in the case of liver abscess unresponsive to aspiration and antibiotics therapy, foreign body migration like a fish bone can be considered among the rare but potential aetiologies.

**References**

