A foreign body in liver mimicking an intrahepatic cholangiocarcinoma

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Introduction

The presence of foreign bodies in the liver is rare. Usually foreign bodies migrate to liver after perforating the upper gastro intestinal tract and cause an abscess or a granuloma. We report a foreign body in the liver mimicking a malignant neoplasm on imaging.

Case report

A 58-year old woman was seen for vague episodic right upper abdominal pain and loss of appetite. She had lost 2-3 kg of weight over two months. Physical examination was unremarkable. She has had a single episode of high fever with chills and rigors, three months previously. The

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fever was associated with vague right hypochondrial pain. She had not noted any features of obstructive jaundice and her bowel habits had been normal. As the symptoms settled within a day she had not sought medical advice.

Blood tests including liver profile were normal except for an elevated CRP of 30 mg/l. Ultrasound scan of abdomen showed a suspicious irregular lesion in the left lobe of the liver. Plain X-ray of abdomen showed no abnormality. Contrast enhanced computed tomography (CECT) of abdomen showed an irregular, heterogeneous lesion of intermediate density occupying segments II and III of the liver.The appearance was similar to that of an intrahepatic cholangiocarcinoma. There were prominent para-aortic lymph nodes (Figure 1).

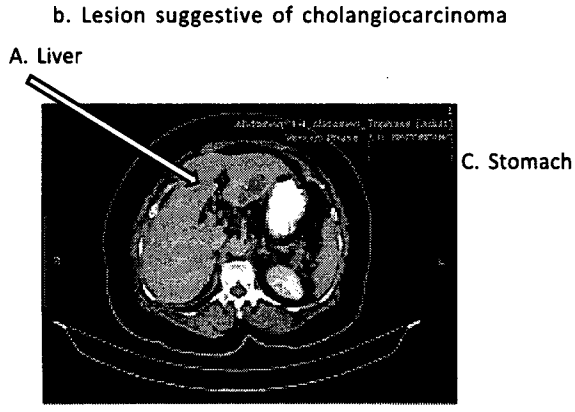

Figure 1. **CECT image of abdomen.**

Tumour marker (CA 19-9 and AFP) levels were normal. In a multi-disciplinary meeting, several radiologists suggested that the possibility of a cholangiocarcinoma could not be excluded. The differential diagnosis was a chronic inflammatory lesion of the liver. Finally, it was decided to treat the lesion as an intrahepatic cholangiocarcinoma. The surgical team agreed on left lobectomy with lymphnode clearance and intra-operative imprint cytology of resection margins and lymph nodes.

During surgery when the left lobe of the liver was retracted to expose the posterior surface, it was noted that the lesser curvature of the stomach was adherent to the liver by an area of fibrosis. Careful dissection of the postero-inferior surface of the liver revealed a fibrotic area with a hard notch. A pointed object embedded in the notch was easily extracted from the liver tissue with no bleeding or drainage of pus. It resembled a fish bone about 3.5 cm in length (Figure 2). The foreign body was sent for analysis. Imprint cytology of the abnormal area on liver revealed granulomatous inflammation. Intra-operative ultrasonography excluded the possibility of any other lesions of the liver. Hepatic resection was abandoned.Post-operative period was uneventful, and the analysis of the foreign body confirmed it as a fish bone. The patient was symptom free three months after surgery.

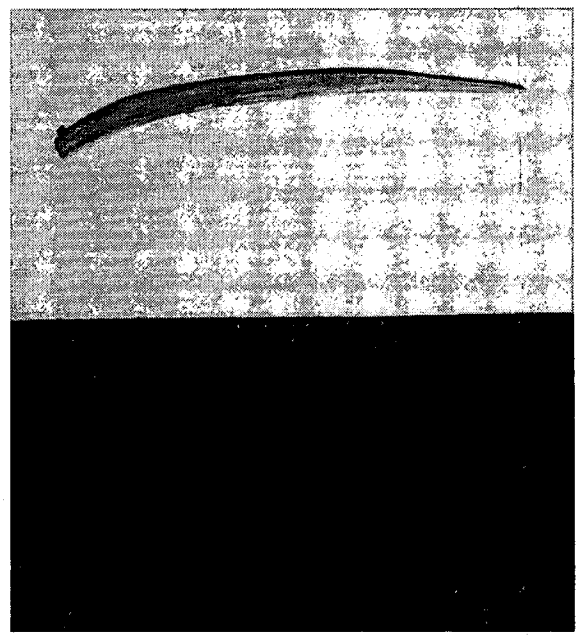

Figure 2. **Fish bone retrieved from the liver.**

Discussion

Presence of a foreign body in the liver after upper gut perforation is rare [1]. Such perforation occurs mainly around the stomach and duodenum and can be induced by sharp foreign bodies like fish bones, chicken bones, needles and toothpicks [2]. Most of these perforations do not cause significant symptoms. Probable time of perforation may be assumed by retrospective speculation. Most patients do not recall a particular incident out of the ordinary and may remain silent until an abscess is formed [2].

According to a Swiss study that reviewed 59 cases of foreign body migration, computed tomography demonstration of a thickened gastrointestinal wall in continuity with the abscess was suggestive of foreign body migration [3]. But CECT of our patient showed a prominent liver lesion similar to an intrahepatic cholangiocarcinoma, with misleadingly prominent paraaortic lymph nodes. An unknown foreign body mimicking colorectal liver metastases has been reported [4]. According to two previous case reports, a foreign body could simulate carcinoma in the head of pancreas [5, 6]. Except for those instances most patients had features of a liver abscess.As pre-operative diagnosis by biopsy is not favoured by many hepatobiliary surgeons, foreign body in liver mimicking a neoplasm could remain a diagnostic dilemma.

Ethics

The patient gave informed, written consent for publication of this article including pictures.

Conflicts of interests

There are no conflicts of interest.

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