

## CLINICAL IMAGE

### Fever of unknown origin due to intrahepatic wooden toothpick

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#### Key Clinical Message

Ingestion of foreign bodies is a common clinical problem, but intrahepatic migration is an exceptional occurrence. Clinical history is not helpful. Abdominal ultrasonography and CT are fundamental to exclude surgical causes of fever of unknown origin. Laparoscopic segmental liver resection is recommendable to avoid generalized peritonitis.

#### Keywords

Fever of unknown origin, intrahepatic foreign bodies, liver abscess, segmental liver resection.

## Clinical Case

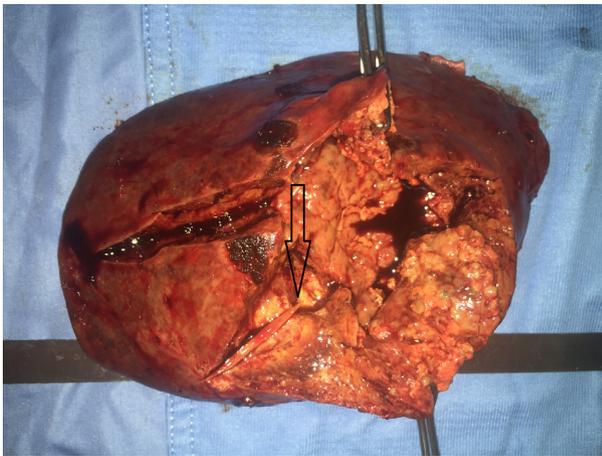
Ingestion of foreign bodies is a common clinical problem [1]. However, intrahepatic migration is an exceptional occurrence. Clinical history is not helpful, and only 50% of ingested toothpicks are radio-opaque [2]. We present a very rare clinical case of intrahepatic migration of a wooden toothpick. A 82-year-old woman was admitted to our University Hospital because of fever of unknown origin (T 39°C), leukocytosis (WBC 16730 mmc, N 85%), and severe inflammatory markers (PCR 20.90 mg/dL). She was completely asymptomatic except for fever. No abdominal pain was referred at presentation, neither previously. No ingestion of foreign bodies was reported. Abdominal examination was unremarkable: no pain, neither distension, nor masses. There was no signs of jaundice. For this reason, patient was first admitted to Division of Infectious Diseases to make a diagnosis. Ultrasonography revealed an 8-cm-diameter hypoechoic hepatic mass in the left lobe with a linear hyperechoic foreign body inside. After execution of abdominal ultrasound, routinely performed to exclude abdominal causes



**Figure 1.** Abdominal CT scan showing toothpick in the liver (black arrow).



**Figure 2.** Ultrasonography showing hepatic abscess with a linear foreign body inside.



**Figure 3.** Liver specimen with toothpick inside a foreign body granuloma.

of fever, the patient was referred to our Division of Surgery where an abdominal CT was performed to confirm and better describe the nature of the foreign body and hypoechoic mass in the liver. Helical CT scan confirmed the presence of the lesion and the foreign body located mainly in segment 2 and extended to segment 3, which was interpreted as a multilocular abscess with a wooden toothpick inside. CT scan also allowed us to better define surgical anatomy before surgery. The patient underwent

laparoscopy, and a wooden toothpick tip was noted on the inferior surface of the left lobe without any sign of previous gastrointestinal perforation. A 3-port laparoscopic left hepatic lobectomy was performed, and a 6-cm wooden toothpick was extracted along with the resected liver. Postoperative outcome was uneventful, and patient was discharged at eighth postoperative day. The histopathologic diagnosis was foreign body granuloma with sterile abscess (probably due to broad-spectrum antibiotic therapy). In case of fever of unknown origin, it is important to exclude surgical causes by ultrasonography and helical CT scan when indicated [3]. *En bloc* laparoscopic segmental liver resection in case of abscess secondary to foreign bodies is recommendable to avoid generalized peritonitis (Figs 1–3).

### Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this manuscript.

### Authorship

GC: conceived and designed the study and wrote it. SL: acquired and analyzed data. AC: interpreted data. SL: drafted and provided critical revision of the article. GN: drafted and provided critical revision of the article.

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