A toothpick man user with COVID-19

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ABSTRACT

Hepatic abscess from gastric foreign body perforation is a condition considered rare. Here we describe the case of a middle-aged man hospitalized for fever, which at the end of the investigations was due to the presence of a foreign body liver abscess. The radiological examination with computed tomography was conclusive. Despite antibiotic therapy, the disease resolved only after surgery. Although these cases are rarely found in the medical department, the diagnosis should always be considered in the presence of liver abscesses.

Introduction

Hepatic abscess from gastric foreign body perforation is a rare condition. Here, we describe the case of a middle-aged man hospitalized for fever, which was caused by the presence of a foreign body liver abscess.

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Case Report

In February 2022, a 63-year-old man was admitted to the Internal Medicine Department of the *Ospedale dell'Angelo* in Mestre (Italy) due to a 2-month fever and SARS-CoV-2 infection.

Before this recovery, he had been in another hospital in December 2021, where a computed tomography (CT) of the abdomen observed multiple nodular formations in both hepatic lobes, hypodense with internal septa, and enhancement after contrast. Furthermore, a linear image of 4 cm in length was present in the posterior wall of the gastric antral region, from which part came out (Figures 1 and 2). Endoscopic examinations (gastroscopy and colonoscopy) showed no lesions, while the liver biopsy was indicative of an abscess. Transthoracic echocardiography was negative for endocarditis.

The patient reported a rheumatoid arthritis disease in a stable phase and was treated with low doses of corticosteroids (medrol 2 mg).

At admission, the patient was alert and cooperative and eupneic in ambient air. There were no pathological pulmonary noises; no heart murmur could be heard; mild hepatomegaly was palpable, and signs of inflammation of the right knee were visible. The blood tests were suggestive of mild anemia and raised inflammation indices.

As the blood cultures grew a multi-sensitive *Streptococcus intermedius*, dual antibiotic therapy was initiated (vancomycin, piperacillin/tazobactam). A few days later, the fever and the right knee inflammation disappeared. A CT scan control of the abdomen showed a reduction in the number and size of the hepatic hypodense lesions, while a hyperdense linear image was also present in the gastric antrum and referable to a foreign body. The esophageal endoscopy with ultrasound, postponed until the SARS-CoV-2 infection clears, confirmed the foreign body in the prepyloric antral site without, however, being able to remove it. For these reasons, the patient underwent laparotomy surgery, which allowed the dislodging of a toothpick about 5 cm long (Figure 3). In March 2022, after a month of hospitalization, a liver ultrasound revealed the complete disappearance of the lesions, and the patient was discharged with the diagnosis of multiple liver abscesses, gastric foreign body, septic arthritis, and COVID-19 paucisymptomatic.

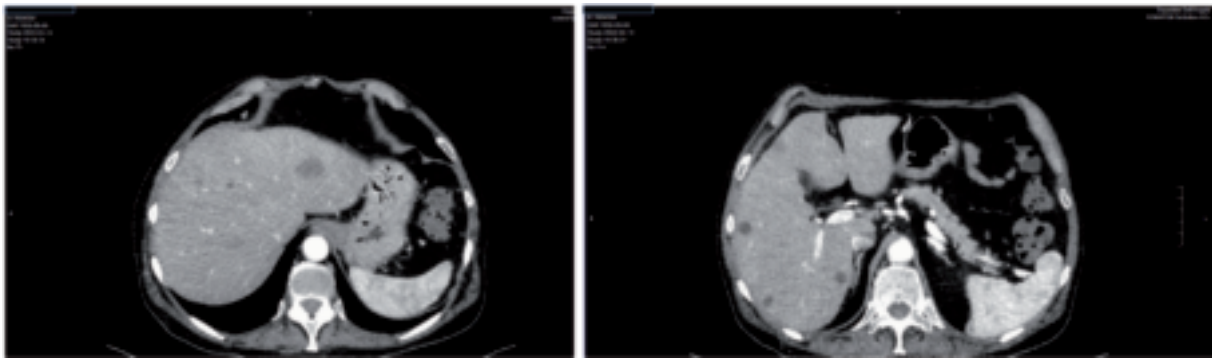

Figure 1. Computed tomography of the abdomen with and without medium contrast. In both hepatic lobes, multiple nodular formations are observed. Such formations result from hypodense in all dynamic phases and have internal septa, more numerous and thicker for the major formations, with enhancement after contrast.

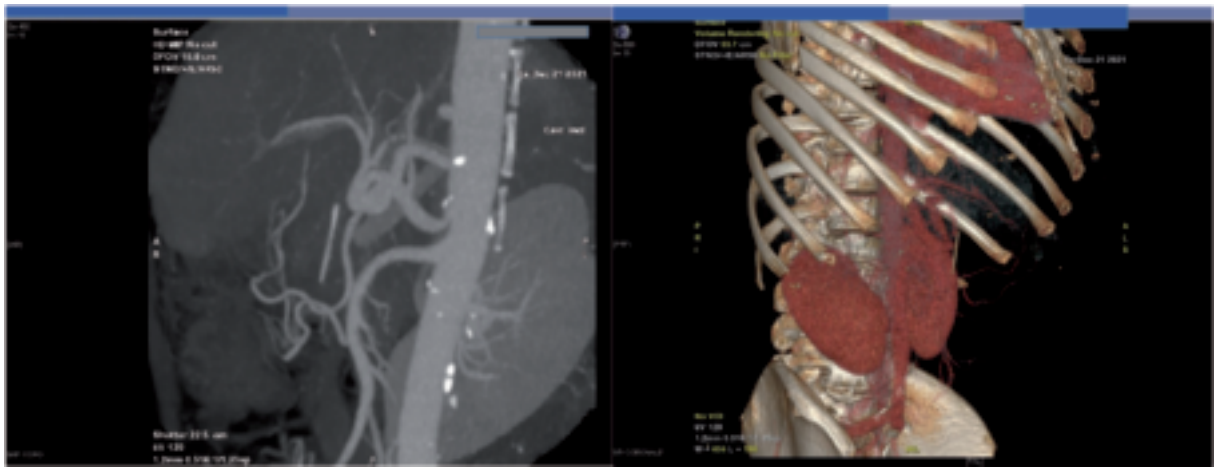

Figure 2. Computed tomography of the abdomen with and without medium contrast. Linear image of 4 cm in length in the posterior wall of the gastric antral region, from which part comes out.

Figure 3. Foreign body (toothpick) extracted in the subserosal prepyloric site by initial laparoscopy and subsequent median laparotomy.

Discussion and Conclusions

Hepatic abscess from gastric foreign body perforation is a condition considered rare. Ingestion of foreign bodies is quite frequent, but complications would only occur in 1% of cases. Foreign body abscesses usually concern patients in middle-advanced age but not only. The cause is fish bones, toothpicks, chicken bones, and sewing needles.[1-3] Symptoms, which may appear even months after ingestion, are pain in the right hypochondrium, fever, and sometimes jaundice[2,4,5] Pretreatment diagnosis is now more frequent and usually secondary to an abdominal CT scan.6 The perforation often resides at the gastric level in the antrum. The literature reported bacterial abscess etiology in most series and *Streptococci* species were the most frequently identified germs (73%).[6,7] Treatment is related to the etiology and the number and size of the abscesses. It generally includes the early use of initially broad-spectrum antibiotics (piperacillin-tazobactam and metronidazole) and then targeted after a percutaneous exploratory puncture. Surgical treatment is most often laparoscopic and/or laparotomy in which the abscess is drained, and the foreign body removed.[8,9]

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