



Pyogenic liver abscess caused by accidental ingestion of a bottle cap

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A 68-year-old female presented to the emergency department complaining of fatigue, headache and feverish sensation.

Upon examination, she had a Glasgow Coma Scale score of 15, hypotension, tachycardia, fever and abdominal tenderness.

Laboratory results showed a high leucocyte count and reactive C protein (440 mg/dl).

Abdominal computed tomography scan showed a liver abscess in segment IV. In close connection, there was a linear, spontaneously dense foreign body, 2 cm long, of metallic aetiology.

The proximity of the gastric antrum and the presence of a perigastric densification between the antrum and this hepatic segment suggested that the foreign body perforated the stomach, lodging in the liver causing an abscess.

A laparotomy was performed and the abscess was drained with removal of metal from a bottle cap.

A penicillin-resistant *Staphylococcus aureus* was isolated in the purulent exudate.

The patient was admitted to the Intensive Care Unit, with a favorable clinical evolution and was transferred to her home country.

Pyogenic liver abscess is a potentially life-threatening condition with mortality up to 19% [1].

Early diagnosis remains a challenge because the clinical signs are usually unspecific and the patient is normally unaware of the ingestion [2]. These factors lead to a low clinical suspicion of this diagnosis (Fig. 1).

Chia et al. reported that non-fulfillment of the SIRS criteria and a higher SpO₂/FiO₂ ratio at emergency department presentation were associated with higher likelihood of missed diagnosis of pyogenic liver abscess. Despite that, a missed diagnosis in the emergency department did not appear to affect outcomes [3].

With this report, the authors pretend to raise awareness of this rare condition and to highlight the importance of including foreign body ingestion in the differential diagnosis of abdominal pain.

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Fig. 1 Coronal plane of the abdominal computed tomography scan showing a dense foreign body lodged in the liver and the surrounding abscess, lower right corner-metallic foreign body from a bottle cap

Compliance with ethical standards

Conflicts of interest On behalf of all authors, the corresponding author states that there is no conflict of interest.

Human and animal rights This article does not contain any study with human and animals performed by any of the authors.

Informed consent Informed consent is not applicable.

References

1. Du ZQ, Zhang LN, Lu Q et al (2016) Clinical characteristics and outcome of pyogenic liver abscess with different size: 15-year experience from a single center. *Sci Rep* 6:35890. <https://doi.org/10.1038/srep35890>
2. Leggeri N, Marques-Vidal P, Cerwenka H, Denys A, Dorta G, Moutardier V, Raoult D (2010) Migrated foreign body liver abscess. *Medicine* 89(2):85–95. <https://doi.org/10.1097/md.0b013e3181d41c38>
3. Chia, D.W.J., Kuan, W.S., Ho, W.H. et al. Early predictors for the diagnosis of pyogenic liver abscess. *Intern Emerg Med* (2019). <https://doi.org/10.1007/s11739-019-02061-z>

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