

## Images in Infectious Diseases

# Hepatic actinomycosis: a very rare form of actinomycosis

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A 72-year-old man presented to the emergency department with a history of fever, general malaise, anorexia, and weight loss of 5-6 kilos over the last 3-4 months. He was diagnosed with diabetes mellitus before 7 years. He had no history of abdominal surgery or gastrointestinal intervention. On physical examination, his body temperature was 39.5°C and his abdomen was soft and non-tender. Abdominal ultrasonography revealed a heterogeneous hypoechoic lesion area measuring 90 × 50 mm in the right lobe of the liver. Abdominal computed tomography showed an irregular limited lesion (Figure 1). The patient had fever (39°C-40°C) 2-3 times a day with severe chills, after which cultures were performed and empiric ceftriaxone 2 g/day (IV) was initiated.

The hepatic abscess was evacuated (Figure 2). Cytopathological examination revealed neutrophils, histiocytes, and *Actinomyces* colonies. The patient was treated with intravenous penicillin G for 45 days and was discharged on treatment with oral ampicillin. The follow-up abdominal magnetic resonance imaging after 2 months revealed no abnormalities (Figure 3). The treatment was completed in 6 months.

*Actinomyces* are anaerobic or microaerophilic gram-positive filamentous bacteria that normally colonize the mouth, colon, and vagina<sup>1,2</sup>. Hepatic involvement is present in 5% cases of actinomycosis. While hepatic involvement may be seen in disseminated actinomycosis, isolated involvement is most likely due to a hematogenous spread from an unknown focus.

In the differential diagnosis of liver abscesses, isolated liver actinomycosis should also be considered in patients without a history of abdominal surgery.

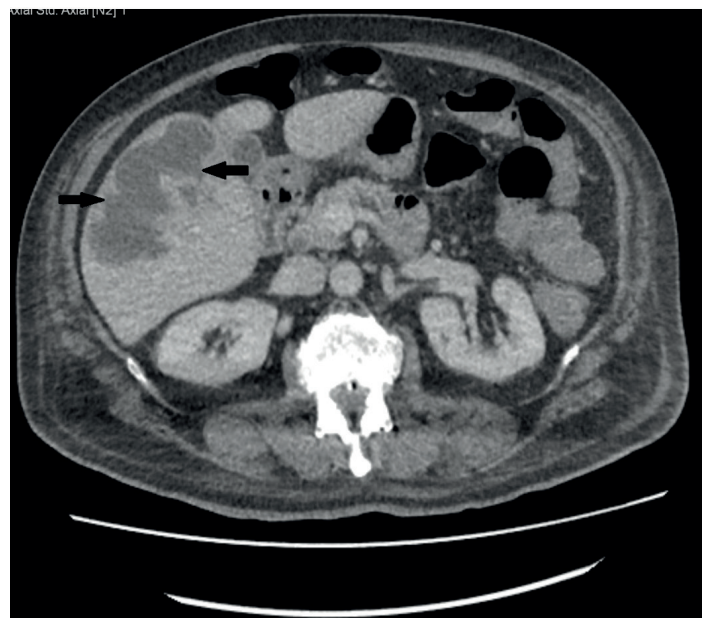


FIGURE 1: Abdominal computed tomography: an irregular limited lesion area with a contoured lobule measuring 110 × 60 mm in the right lobe of the liver (arrows).

### AUTHORS' CONTRIBUTION


AA, ZO and KO both collect data and wrote of the article. Therefore all co-authors actively participated in writing the article. We did not write anybody who did not contribute to actively participated in writing the article.

### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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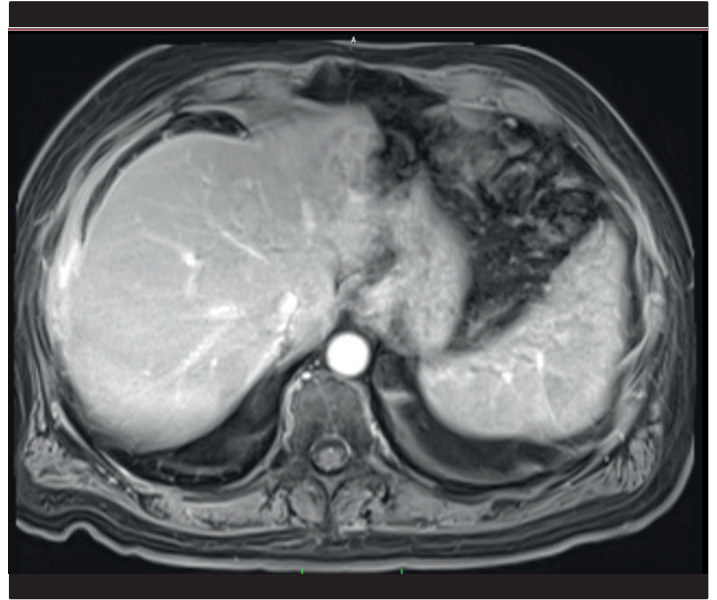
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Received 3 June 2020

Accepted 18 August 2020



**FIGURE 2:** The abscess material.



**FIGURE 3:** Abdominal magnetic resonance imaging revealed no abnormal findings in the liver.

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