

# A rare view: giant liver abscess with underlying liver metastases

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## DESCRIPTION

Liver abscess (LA) refers to a suppurated cavity caused by the invasion of liver parenchyma, most commonly by Gram-negative bacteria. Although rare, it is potentially life-threatening. Giant LA (>10 cm) is even more uncommon.<sup>1</sup> Symptoms and signs are non-specific and the diagnosis relies essentially on imaging with ultrasound (US) and CT scan. Treatment is based on antimicrobials, abscess drainage and approach to the underlying disease.<sup>2</sup> For pyogenic LA, prompt initiation of empirical broad-spectrum intravenous antibiotics,<sup>2</sup> usually a third-generation cephalosporin plus metronidazole, is essential with subsequent adjustment to culture and sensitivity, usually for 10–14 days, depending on clinical and radiological response. Together with CT scan or US-guided percutaneous catheter drainage (PD), it is the initial treatment of choice.<sup>1</sup> However, large LA >5 cm predicts failure of PD and the need for surgical drainage.<sup>3</sup> Malignancy and multiloculation are also risk factors for therapy failure. The

best outcome is achieved with close coordination of a multidisciplinary team and rigorous drain management protocol.<sup>1</sup> We report the case of a 74-year-old woman with pancreatic carcinoma with liver metastasis that required a biliary prosthesis. She presented with fever, abdominal pain and jaundice and was diagnosed with cholangitis, starting intravenous antibiotics, adjusted to blood cultures (*Streptococcus anginosus*, *Raoultella*



Figure 1 Thoracoabdominal CT scan, axial.



Figure 2 Thoracoabdominal CT scan, axial, with intravenous contrast, after drainage, abscess size progression, one giant.



Figure 3 Thoracoabdominal CT scan, coronal, with intravenous contrast, after drainage, abscess size progression, one giant.



Figure 4 Thoracic X-ray, posteroanterior, showing air under the right side of the diaphragm.



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*planticola* and *Enterobacter cloacae*). An endoscopic retrograde cholangiopancreatography showed occlusion of the prosthesis, then replaced. After 5 days of unresolved infection, a new CT scan revealed multiple liver metastases and abscesses (figure 1). A CT-guided percutaneous drainage was performed: *E. cloacae*, *Enterococcus faecalis* and *Candida glabrata* were isolated in the pus, and antimicrobials adjusted. After 4 days, the patient got worse, with signs of severe organ failure. CT scan revealed a giant subcapsular liver abscess, with

16 cm, and worsening of the previous abscesses (figures 2-4). The patient died 2 days later.

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## Learning points

- ▶ Giant liver abscess is a very rare disease, but with up to 46% mortality.
- ▶ Prompt initiation of parenteral broad-spectrum antibiotics, early ultrasound or CT to confirm diagnosis, percutaneous drainage, tissue culture and repeated scans, if sepsis persists, are the main approaches to achieve the best optimal outcome.
- ▶ Giant size and multiloculation are predictors of failure of percutaneous drainage and need for surgical drainage.

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