

## CLINICAL IMAGE

# How much liver does a person need?

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**Abstract**

In patients who had no medical care for years, it is wise to expect the unexpected. Here, a gigantic liver cyst compressed abdominal organs, vessels, and the gut. The patient is thus far doing well in a nursing home, exemplifying the low amount of residual liver tissue necessary for survival.

**KEYWORDS**

abdominal compression, liver cyst

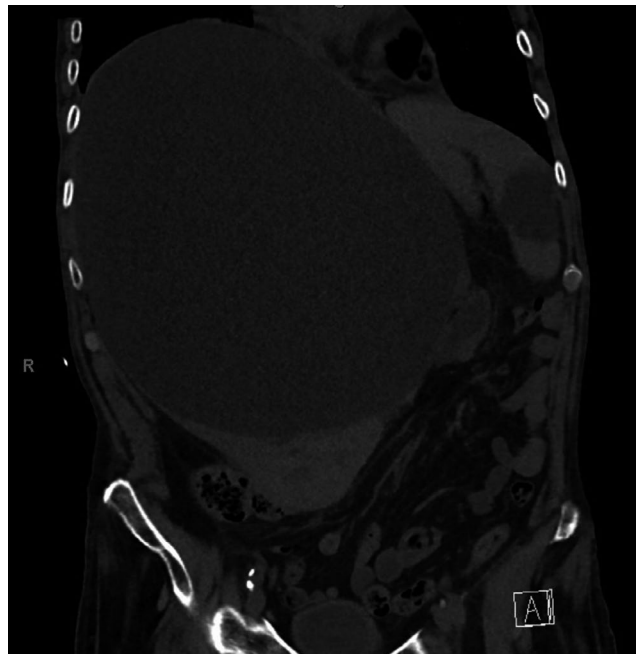
## 1 | CASE REPORT

Liver cysts are not an uncommon finding. In elderly patients without medical care for long time, they may reach critical diameters combined with a compression of abdominal organs, vessels, and the gut. Other potential problems are rupture or bleeding of the cyst(s) or an infection of the cyst(s).

An 82-year-old patient suffered a syncope and was found bedraggled at home in February 2019. The patient had hardly any social contacts in recent years and had not been to a doctor for a long time. He had anemia, but normal serum transaminase and blood coagulation levels. Only cholinesterase was reduced with 77  $\mu\text{kat/L}$  (normal range: 89-215). An ultrasonography revealed a huge liver cyst, the computed tomography scan of the abdomen revealed the cystic lesion sized 25  $\times$  19 cm, filling almost the entire right lobe of the liver (Figure 1). It caused a diaphragmatic elevation on the right and a compression of abdominal organs. There was no hint of malignancy in other organs. The patient declined a puncture to achieve at least a transient volume relief. Surgery was not possible in his general condition.

Liver cysts are frequent: In an ultrasound screening by Larssen et al<sup>1</sup> of 1541 patients, cysts are described in 11.3%. In more than 90% of cases, they were 3 cm in diameter or smaller, the incidence increasing with age. Usually, no therapy is required. In liver surgery, a residual tissue mass of

20%-30% is considered sufficient for functional maintenance in healthy people.<sup>2</sup> Unfortunately, self-care by the patient was no longer possible; he was transferred to a nursing home. He



**FIGURE 1** Computed tomography of the abdomen, coronal section: Huge liver cyst with displacement of the upper abdominal organs, gastrointestinal tract, and intra-abdominal vessels

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is doing well there, and the case described here exemplifies how little liver remnant parenchyma is needed to survive.

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#### CONFLICT OF INTEREST

There are no conflicts of interest.

#### AUTHOR CONTRIBUTIONS

IAH wrote the article and has accountability for all aspects of the work.

#### ETHICAL APPROVAL

The patient gave written consent to report his case and the imaging.

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