Liver Infarction due to Liver Abscess

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Case

A 74-year-old man was admitted with diarrhea and abdominal pain. Blood tests results suggested inflammation and necrosis of liver cells. A CT scan revealed two low-density lesions with slight peripheral enhancement in the liver. The larger lesion interrupted the hepatic artery and the portal vein to segment III. Segment III showed homogeneous low density (fig. 1a). We diag-

nosed segment III infarction due to liver abscess, because CT scan showed the cluster sign characteristic of a liver abscess [1, 2].

We performed an operation for lavage and drainage (fig. 2). Nine days later, CT examination revealed that the abscess cavity had become smaller and the infarction area had a transformed abscess (fig. 1b). Five months later, CT examination revealed that the lateral segment of the liver was entirely reduced (fig. 1c).

Fig. 1. **a** CT examination showed liver infarction of segment III and liver abscess with interruption of the vessels to segment III. **b** CT examination showed reduction of abscess and transformation of infarction area to abscess.

Fig. 1. c CT examination showed reduction of the left liver lobe.

Fig. 2. Left liver lobe swollen with light bloody ascites. We could not puncture the abscess because of an infarction located in front of the abscess.

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Discussion

Hepatic infarction is uncommon because of the liver's dual blood supply and the tolerance of hepatocytes for low levels of oxygen.

In the literature, four types of disorders are given as a cause of liver infarction. The first is iatrogenic arterial injuries, the second is systemic disorders, the third is hypercoagulable states, and the fourth is miscellaneous causes.

To our knowledge, this is the first report of liver infarction due to liver abscess.

References

- 1 Jeffery RB Jr, Tolentino CS, Chang FC, Federle MP: CT of small pyogenic hepatic abscesses: the cluster sign. *AJR Am J Roentgenol* 1988; 151:487-489.
- 2 Grant T, Brandt TD: Use of the cluster sign in the diagnosis of small pyogenic hepatic abscesses. *AJR Am J Roentgenol* 1989;153: 429-430.