

A solitary necrotic nodule of the liver

Dong Hyun Kim, Jae-Jun Shim, and Byung-Ho Kim

Department of Internal Medicine,
 Kyung Hee University School of
 Medicine, Seoul, Korea

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Correspondence to
 Byung-Ho Kim, M.D.
 Tel: +82-2-958-8145
 Fax: +82-2-968-1848
 E-mail: kimbh1955@gmail.com

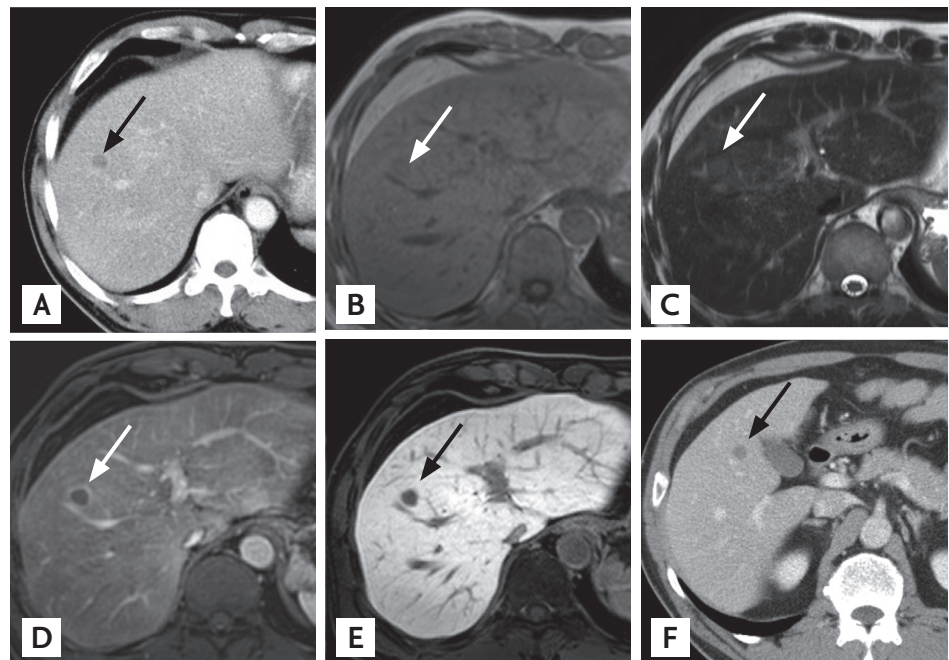
A 56-year-old man was referred to our hospital after a solitary mass was discovered in his liver on abdominal computed tomography (CT) performed for health screening. His medical history was noncontributory, except for hypertension. The physical examination was unremarkable. Laboratory tests were all within normal limits, including liver function tests. Serology profiles for hepatitis B and C were negative. Alpha fetoprotein was 6.72 ng/mL. There was no history of alcohol abuse.

The initial abdominal CT showed a round hypodense nodule with a well-demarcated margin in segment VIII measuring 1.5 × 1.5 cm, with no contrast enhancement (Fig. 1A). To differ-

entiate malignant tumor, we performed magnetic resonance imaging. The tumor was hypointense in T1-weighted images (Fig. 1B) and showed subtle hyperintensity on T2-weighted images and rim enhancement during the arterial phase (Fig. 1C and 1D). The portal and delayed phases showed homogenous hypointensity (Fig. 1E).

The tumor was biopsied under ultrasound guidance. The histology revealed an encapsulated necrotic lesion with mild lymphocyte, plasma cell, and histiocyte infiltration. The surrounding lesion revealed normal hepatic parenchyma with few neutrophils and lymphocytes (Fig. 2A and 2B). Based on the image and histology findings, a solitary necrotic nodule of

Figure 1. Solitary necrotic nodule of the liver (arrows). (A) Initial computed tomography (CT) shows an isointense to hypointense lesion in liver segment VIII in the portal phase. (B) Liver magnetic resonance imaging shows low signal intensity on T1-weighted images, (C) subtle hyperintensity on T2-weighted images, (D) thin rim, perilesional parenchymal enhancement in the arterial phase, and (E) hypointensity on the delayed phase. (F) On follow-up CT after 7 months, the nodule had decreased slightly in size.



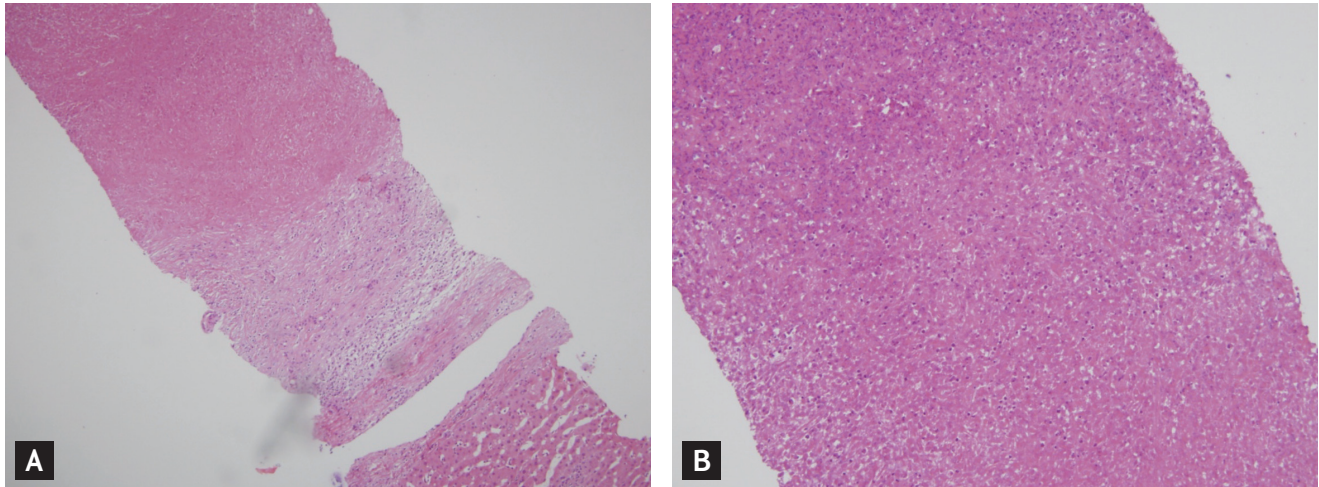


Figure 2. (A) Microscopically, the tumor consisted of well-marginated confluent necrosis encapsulated by a fibrotic capsule (H&E, $\times 100$). (B) Diffuse lymphocyte, plasma cell, and histiocyte infiltration in the necrotic area suggests chronic inflammation (H&E, $\times 200$).

the liver was diagnosed. Follow-up CT after 7 months showed that the lesion had decreased in size to 1.3×0.95 cm. It was still hypointense compared with the normal liver parenchyma, without detectable enhancement (Fig. 1F).

Conflict of interest

No potential conflict of interest relevant to this article is reported.