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Two cases with hepatocellular carcinoma and spleen metastasis

İki hepatosellüler karsinom olgusunda görülen dalak metastazi

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Metastasis of hepatocellular carcinoma to various organs is frequently seen. The lungs, regional lymph nodes, kidney, bone marrow and adrenals are relatively common sites of metastasis. However, metastasis to the spleen is extremely rare. Herein, two patients with hepatocellular carcinoma who developed splenic metastasis are described and distinctive features of spleen metastasis are summarized.

Key words: Hepatocellular carcinoma, splenic metastasis.

Hepatosellüler Karsinom (HCC)' un bir çok organa metastaz yaptığı bilinmektedir. Akciğerler, bölgesel lenf nodları, böbrekler, adrenal bezler ve kemik iliği bu metastazların en yaygın olduğu oraganlardır. Buna rağmen dalak metastazı oldukça nadirdir. Bu vaka sunumunda, dalak metastazı ile giden iki HCC' lu olgu anlatılmaktadır. Ayrıca, dalak metastazlarının belirgin özellikleri özetlenmektedir.

Anahtar kelimeler: Hepatosellüler karsinom, dalak metastazı

INTRODUCTION

Hepatocellular carcinoma (HCC) is one of the highly malignant neoplasms. Extrahepatic metastases are seen in 64% of patients with HCC. The lungs, regional lymph nodes, kidney, bone marrow and adrenals are common sites of HCC metastasis (1-4).

Herein, we report two patients with HCC who developed extrahepatic metastasis. The first case was a cirrhotic patient with HCC who presented with spleen metastasis. The second case was a patient with chronic hepatitis. He developed HCC and spleen metastasis in the course of disease.

CASE1

A 62-year-old woman admitted to the hospital with severe ascites and abdominal pain. She had a past medical history of liver cirrhosis for seven years due to hepatitis B. Abdominal sonography revealed diffuse hypoechoic appearance, and a mass lesion 19 mm in diameter. Dynamic computed tomography (CT) showed that the liver had irregular margins, the right lobe of the liver was smaller than normal, and the caudate lobe was hypertrophic. Three were also multiple hypodense nodules, seen in the liver, with the biggest 2 cm in diameter, and all nodules were dyed at early arterial phase with contrast material. Interestingly, the spleen had three hypodense solid lesions: the first was 1 cm in diameter in the upper pole posteriorly, the second was 2 cm in diameter anteriorly, and the third was 3 cm in diameter subcapsular and located posteriorly. The serum alpha-fetoprotein level was higher than 400 U/L. Liver biopsy could not be done because of massive ascites and high bleeding time. Alcohol injection treatment was performed. Unfortunately, the patient died of hepatic failure approximately one year later. Autopsy was not performed because her family did not give permission.

CASE 2

A 47-year-old man with HBV-related cirrhosis was admitted to the hospital because of right flank pain of for three-months duration. Sonography showed a mass lesion infiltrating the right lobe of the liver. Alpha-fetoprotein level was 56 U/L. Liver biopsy was done. Pathological exam-

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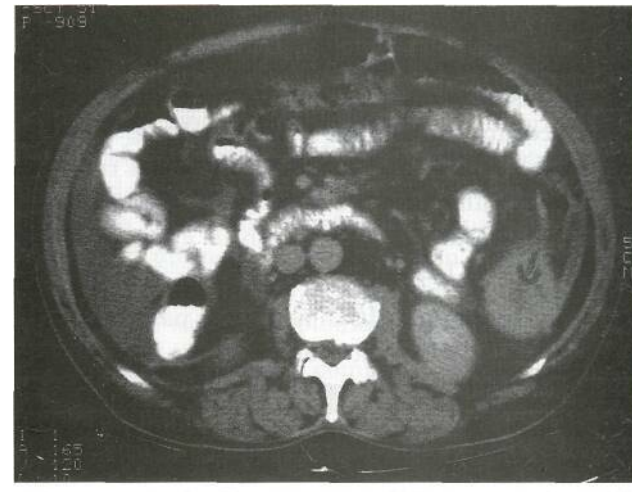
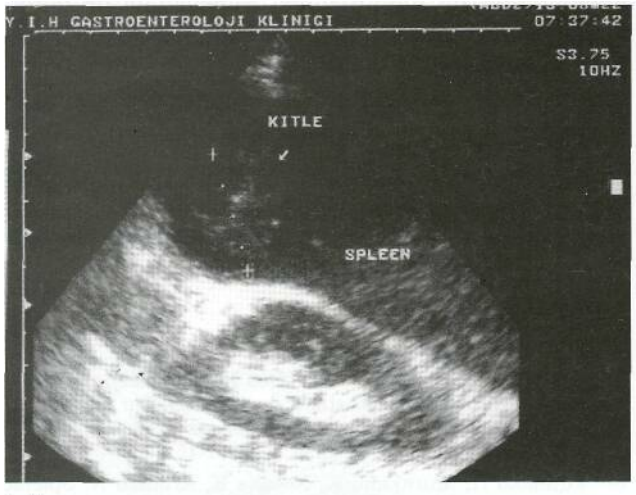
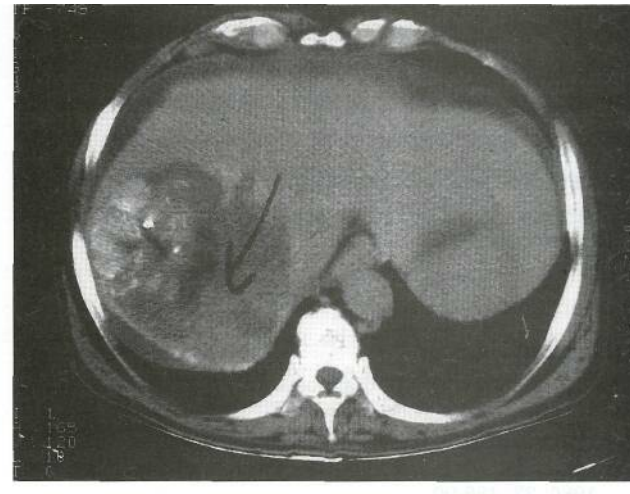
ination was consistent with HCC. Celiac and hepatic arteriography were done. Multiple malignant mass lesions taking blood supply from right hepatic artery were seen and transarterial chemoembolization was performed twice. In follow-up sonography six months later, the spleen metastasis was visible. Sonographic and CT appearances of the HCC and splenic metastasis are seen in Figures 1A, IB, and 1C. He died seven months after the diagnosis because of hepatic encephalopathy. Autopsy was not done because his family did not give permission.



1 B



1 A



1C

Table 1. Previous cases in the literature with hepatocellular carcinoma (HCC) and splenic metastasis and their distinctive features

Age, Sex	Major finding at presentation	Appearance of splenic metastasis	Author
68-year-old woman	abdominal fullness	US revealed a hypoechoic lesion in the liver and spleen	Yamamoto R, et al.
61-year-old man	swelling of cervical lymph nodes	US showed a mosaic pattern of a mass lesion in the spleen	Yamamoto R, et al.
62-year-old man	left upper quadrant mass	Dynamic CT and angiography revealed a huge hypovascular mass in the spleen.	Fujimoto H, et al.
62-year-old woman	spontaneous rupture of spleen	Operation revealed intraperitoneal hemorrhage	Horie Y, et al.
55-year-old man	non-cirrhotic liver	During chemotherapy for chronic myelogenous leukemia	Katoh M, et al.
62-year-old man	massive hemorrhage within the splenic metastasis	Tc-99m HMDP accumulation in a huge splenic mass	Fujimoto H, et al.

US: Ultrasonnography; CT: Computed tomography

DISCUSSION

Hepatocellular carcinoma frequently metastasizes to various organs, and the extrahepatic metastases account for around 64%. The lung, abdominal lymph nodes, and bone are the most common sites of extrahepatic metastatic HCC. Metastasis to the spleen is very rare, seen in approximately 0.8% of cases (1-5).

Most extrahepatic HCC occur in patients with advanced intrahepatic tumor stage. Incidental extrahepatic lesions found at CT in patients having HCC of intrahepatic stage I or II are unlikely to represent metastatic HCC (4).

Clinical picture of presentation of splenic metastasis is variable. The patient may be asymptomatic, or the patient may present with hemoperitoneum due to splenic rupture. Distinctive features of previous cases in the literature with HCC and splenic metastasis are summarized in Table 1 (5-8).

Although the spleen is a highly vascular organ, the splenic metastasis of malignant diseases is uncommon (1-3). That is presumably due to the property of the spleen as an immunologic organ and to the sharp angle of the splenic artery at its origin from the celiac axis, which makes it difficult for the tumor emboli to enter the spleen. It is also believed that the most common route of splenic metastasis is hematogenous or direct seeding (1). The most common primary tumors metastasized to the spleen are reported as gastric, colon, lung and ovarian cancers. But, the rate of splenic metastasis per tumor is found to be highest in ovarian cancer (50.0%), followed by malignant melanoma (33.3%), colon cancer (16.2%) and gastric cancer (8.2%) *(I, 3,* 4, 9). The high incidence of splenic metastasis in gynecologic tumors may be related to their particular biologic behavior of being prone to direct seeding (1). In ultrasonographic examination, the metastatic foci in the spleen may be hyperechoic, hypoechoic or nonechoic. In CT investigation, hypodense lesions are seen *(I,* 4, 9-12).

Herein, we wished to share with our colleagues two different clinical pictures of HCC cases and the peculiar appearance of splenic metastasis of HCC.

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