INTRODUCTION

Hepatocellular carcinoma (HCC) is the most common primary malignant tumor of the liver. There are some reports of primary extrahepatic HCC. But there is no report of HCC presenting as primary thigh mass. We report a case of HCC as a palpable mass in the right thigh, without hepatic lesion. On an MRI, the mass showed non-specific signal intensity and was progressively and centripetally enhanced.

Index terms
Carcinoma, Hepatocellular
Thigh
Extrahepatic
MRI

CASE REPORT

A 56-year-old healthy male complained about a palpable mass in the right thigh. He had no past medical history of hepatitis, liver cirrhosis or intrahepatic HCC. As a result of performing the pelvic magnetic resonance (MR) imaging, approximately 5 × 6 cm-sized well-defined ovoid mass was seen in the right thigh, just below the inguinal area. The mass was heterogeneous signal intensity with high signal intensity portion on a T2 weighted image and homogeneous intermediate to high signal intensity on a T1 weighted image, when compared to those of the thigh muscle. On a Short T1 Inversion Recovery (STIR) image, signal drop was not definitely seen in the mass. Dynamic contrast study showed progressively centripetal enhancement of the mass (Fig. 1A-E).

In our opinion, metastatic lymphadenopathy or malignant spindle cell neoplasm could be included in a differential diagnosis. The patient underwent ultrasonography guided biopsy with 18 gauge gun-biopsy needles. On a sonography, the mass was well-defined and hypoechoic. Histopathologically, the tissue specimen consisted of hepatoid tumor cells and immunochemical stain of antihuman hepatocyte antibody was positive. The mass was surgically excised. Gross specimen showed a well-defined, yellowish round mass. Microscopically hepatoid tumor cells were seen and lymphoid follicles were visible in the periphery of tumor cell clusters (Fig. 1F-H). So, pathologically, the mass confirmed as HCC arising in the lymph
Hepatocellular Carcinoma in the Right Thigh without Primary Hepatic Lesion

HCC is the most common primary malignant tumor of the liver. HCC is commonly found in Korean hospitals due to high incidence of hepatitis B and C in Asia. HCC metastasizes to anywhere of the body though the blood directly or by lymphatic spread (1). Extrahepatic metastases of HCC are not uncommon in the late-stage HCC patients. Most documented extrahepatic metastatic lesions have been found in the lungs, followed by the lymph nodes, bones, and adrenal glands (4-6).

There are some reports of primary extrahepatic HCC (2, 3). In 1986, Longmaid et al. (2) reported seven patients of extrahepatic HCC. Involving areas of extrahepatic HCC are retrogastric, peripancreatic, suprarenal, omental, and pelvic. The hepatic lesions seen in five of the seven patients were believed to be metastases. In two of the three patients with a history of liver disease, no intrahepatic lesions were found and the HCCs occurred outside the hepatic parenchyma.

Cho et al. (3) reported a case of extrahepatic bile duct HCC without primary hepatic parenchymal lesions in 1996. Hepatic angiogram was performed, but did not show any tumor staining.

Fig. 1. A 56 years old man with palpable mass in the right thigh just below the inguinal area underwent pelvic MRI and the mass was surgically resected.

A, B. The mass (arrows) is heterogeneous signal intensity with high signal intensity portion on T2 weighted image (A), and homogeneous intermediate to high signal intensity on T1 weighted image (B) when compared to those of thigh muscle.

C-E. Dynamic contrast study shows progressively centripetal enhancement of the mass (arrows) on precontrast (C), arterial (D), and 5 minutes delayed (E) phases.

F, G. Microscopically hepatoid tumor cells are seen and lymphoid follicles (arrows) are visible in the periphery of tumor cell clusters [hematoxylin-eosin stain, x 40 (F), x 400 (G)].

H. The tumor cells are positive for anti-human hepatocyte antibody (immunohistochemical stain, x 100).
In conclusion, we report a rare and valuable case of extrahepatic HCC in the thigh, just below the inguinal area, lymph node with no hepatic lesion or any risk of HCC. The mass showed non-specific signal intensity and was progressively and centripetally enhanced on MRI.

REFERENCES

간내 병변 없이 간세포암으로 진단된 우측 허벅지 종괴: 중례 보고

김지영1 · 장재천1 · 손락채2

간세포암은 다양한 부위로 드물지 않게 간외전이를 일으킨다. 하지만 원발 간병변 없이 간외 간세포암이 보고된 예는 드물다. 허벅지에 만져지는 종괴를 주소로 내원한 환자에서 간내 병변이 발견되지 않았으나, 수술을 통해 허벅지 종괴가 간세포암으로 진단된 1예를 경험하였기에 이를 보고하는 바이다. MRI상 허벅지 종괴는 비특이적인 신호강도였고 점차적으로 구심성으로 조영증강이 되었다.

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