Olgu Sunumu

Skull Metastasis of Hepatocellular Carcinoma: A Case Report

Kafatasında Hepatoselüler Karsinom Metastazı

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SUMMARY

Hepatocellular carcinoma (HCC) is the fifth most common cancer in the world and is especially prevalent in Africa and East Asia. Late-stage HCC usually metastasizes to the regional lymph nodes and lungs, but less commonly to the skeleton. Scalp metastases from HCC are very rare but must be considered when treating a patient with known cirrhosis, hepatitis, or HCC. 61 years old male patient presented to the emergency room with complaint of headache. He had known HCC for one year and had an operation for it. There was no known metastasis of tumor, yet. In his physical examination there was no important finding except scalp mass on the right parieatal bone of cranium.When it was questioned, we learned that it was slowly growing for 4 months. In his cranial computed tomography there was an osteolytic, expansile, and hypervascular lesion in right parietal bone and multiple lytic lesions were detected in other cranial bones. Especially in Asia, skull metastases from HCC should be included in the differential diagnosis of skull tumors, even if the patient is asymptomatic of liver cirrhosis. With the increase of survival in HCC patients, clinically significant bone metastases have also increased, affecting the patients' quality of life. Therefore, early diagnosis and proper management of bone metastasis from HCC is essential to prevent deterioration in the quality of life of HCC patients.

Key words: *HCC, Skull, metastasis.*

ÖZET

Hepatosellüler karsinoma (HCC), dünyada 5. sıklıkta görülen kanserdir ve özellikle Afrika ve Doğu Asya'da ağırlıktadır. Geç dönem HCC genelde bölgesel lenf düğümlerine ve akciğerlere metastaz yapar, ama daha az sıklıkla iskelette metastaz görülür. Kafatası kemiği metastazı çok nadirdir fakat bilinen sirozu , hepatiti veya HCC si olan hastaları tedavi ederken düşünülmelidir. 61 yaşında erkek hasta acil servise başağrısı şikayeti ile başvurmuştur. Hastanın 1 yıldır bilinen HCC si olup bu nedenle opere edilmiştir. Henüz bilinen metastazı yoktu. Fizik muayenede kafada sağ pariyetal kemik üzerinde ele gelen kitle haricinde önemli bir bulgu saptanmamıştır. Sorgulandığında kitlenin 4 ay içinde yavaş yavaş büyüdüğü öğrenildi. Hastanın kraniyel tomografisinde osteolitik, genişleyen ve hipervaskuler sağ parietal kemik üzerinde lezyonu ve diğer kraniyel kemiklerde çoğul osteolitik lezyonları saptandı. Özellikle Asya'da hasta asemptomatik karaciğer sirozu olsa dahi kafatası kemik tümörlerinin ayırıcı tanısında HCC'nin metastazı düşünülmelidir. HCC hastalarında artan sürvi ile birlikte klinik olarak belirgin, hastanın hayat kalitesini etkileyen kemik metastazları artmıştır. Bu nedenle erken tanı ve HCC den doğan kemik metastazlarının uygun tedavisi, HCC hastalarının hayat kalitesinde bozulmayı önlemek amacı ile gereklidir.

Anahtar Kelimeler: *Hepatosellüler karsinoma, kafatası kemiği, metastaz.*

INTRODUCTION

Hepatocellular carcinoma (HCC) is the most common primary tumour of the liver. Lungs, abdominal lymph nodes, and bones are the most common extrahepatic metastatic sites of HCC. HCC usually metastasizes preferentially to the vertebral column, pelvis, and ribs, but rarely to the skull (1). Although the incidence of bone metastases in HCC has been described as very low in autopsy studies, an increasing trend has been reported recently. In the past, because of its short survival of patients with HCC, their clinical presentations were mostly concerned with the manifestations of the primary cancer itself.

However, recent progress in the treatment of HCC has made it possible for the patient to survive longer, and as a result, distant metastasis from HCC, including bone metastasis, has increased and attracted more attention than before. Skull involvement can be observed in various neoplasms of epithelial origin and are most often due to lung, breast, thyroid, kidney and prostate cancers. Cutaneous and skull metastases from HCC are very rare (2). In this report, we describe a patient with previously known liver disease who presented with metastatic HCC of the skull to the emergency room.

CASE

A 61 years old male patient presented to the emergency room with complaint of headache did not have a history of a recent head trauma. He had chronic headache complaint for nearly 5 months. He had admitted to internal medicine and neurology outpatient clinics of other hospitals, and with a diagnosis

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of cluster headache, he was taking medicines. His headache worsened and that day he had the worst. He had known hepatocellular carcinoma (HCC) for one year and had an operation for it. There was no known metastasis of tumor, yet. He was followed upin the oncology clinic. In emergency room his vital signs were normal. In his physical examination there was no important finding except scalp mass on the right parieatal bone of cranium which was firm in consistency and non tender. No pus dis-charge was noted from the swelling. In his neuorological examination there was no pathological finding. There was no meningismus signs, too. When it was questioned, we learned that the mass was slowly growing for 4 months.

We decided to take cranial tomography. In his cranial computed tomography (CT) there was an osteolytic, expansile, and hypervascular lesion in right parietal bone and multiple lytic lesions were detected in other cranial bones (Figure 1 and Figure 2).

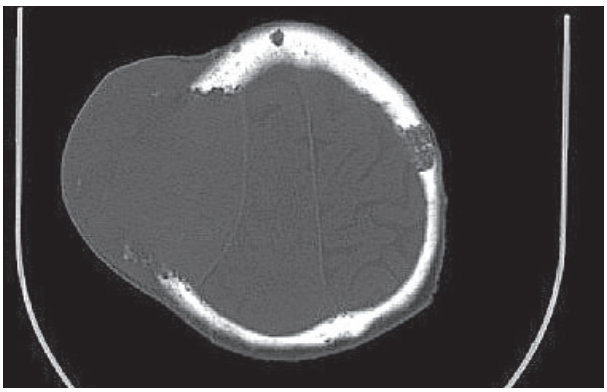

Figure 1. Skull metastases. Cranial CT image shows multiple expansile osteolytic metastases in the frontal and parietal bones.

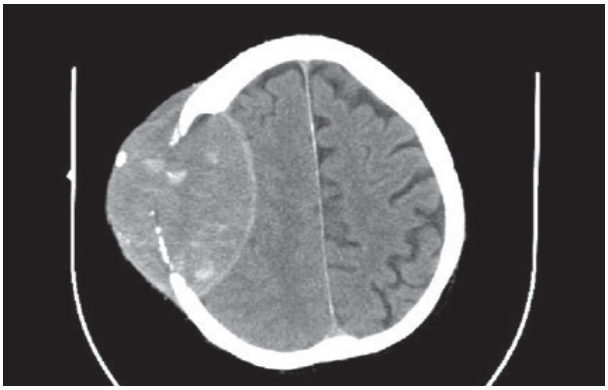

Figure 2. Skull metastases in a patient with known hepatocellular carcinoma.

DISCUSSION

The incidence of skeletal metastasis from HCC is estimated to be 2%–16%, depending on the prevalence of the primary disease in the population. The most frequent sites of osseous metastases from HCC are vertebrae, the sternum, ribs, and long bones, The skull metastasis is absorved very rearly with an incidenceof 0,5-1,6%. Skull metastases from HCC predominantly affect males in their sixth and seventh decades (1). This patient initially visited the hospital due to the symptom of headache. The previous literature revealed tahat, "headache" is the presenting symptom in11% of cases (3). The metastases from HCC is commonly present in the skull base and less frequently seen in the skull vault with a subcutaneous mass as the most common clinical presentation(63%) (4). Other signs and symptoms are neurological deficits (44%) and seizures. Patients who present with neurological deficits usually manifest as facial palsy, deafness, visual disturbance, facial numbness, weakness of limbs, and other cranial nerve palsies, depending on the size of tumour and its location (3).

The metastatic lesions may be the presenting sign of the HCC, and the hepatic lesions may not be detected until many months after the diagnosis of the metastatic disease (5). Thus, in patients presenting with a subcutaneous mass, the differential diagnosis should include internal organ metastasis, especially in countries where HCC is common. It was seen that no lesion factors affected survival. Thus, subcutaneous metastasis had a minimal impact on the survival of HCC patients. The strategy for treating subcutaneous metastasis in HCC patients should be based on the patient's performance status. In one study it was found that there were no deaths directly related to subcutaneous metastasis, and there was no evidence that subcutaneous metastasis was associated with a poor prognosis in patients with HCC (6). In comparison with the incidence of skull metastases before the 1980's, the incidence after the 1990's has clearly increased because of a prolonged survival rate due to recent progress in the diagnosis and treatment of HCC (1).

Therefore, particularly in Asia, patients with HCC should be closely monitored for skull metastases. Plain skull x-ray is the most frequent initial diagnostic step in the patient with clinical suspicion of a bone lesion and bone scan with technetium- 99m-methylene diphosphonate is widely used as a screening tool to detect bone metastases. On radiological examination, osteolytic-type behavior with a tendency to be highly enhanced is the most common finding. However these findings are not specific to just HCC.

CONCLUSION

HCCs should be considered in the differential diagnosis of carcinomas metastatic to the skin, even in the absence of liver symptoms or absence of imaging finding with ultrasonography or CT that usually reveal the primary lesion.

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