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Muscle metastasis from hepatocellular carcinoma: A Case Report

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ABSTRACT: Hepatocellular carcinoma (HCC) is diagnosed in half a million of the world's population annually. The most common sites for extrahepatic metastasis includes lung, abdominal lymph nodes, adrenal glands and bone (1) . Extrahepatic metastasis of hepatocellular carcinoma is an indicator of a poor prognosis. Skeletal muscle metastasis is an extremely rare occurrence. I am reporting a case of isolated metastasis of HCC to right iliacus muscle who presented with loss of appetite and hard hepatomegaly. Upon evaluation he had an AFP level of 451 ng/ml and CT abdomen showing HCC and a lesion in right iliacus muscle. FNAC showed it was a metastasis from HCC.

Key words : Hepatocellular carcinoma, Muscle metastasis

I. INTRODUCTION

Hepatocellular carcinoma is the sixth most common malignancy and the third most common cause of cancer-related death in the world . Incidence of HCC worldwide is between 250000 and 1000000 new cases per year (2). Survival time in patients with HCC has recently increased as a consequence of advanced diagnostic modalities and treatment methods. However, the 5-year survival rate still remains low at approximately 16%. Currently available treatment modalities include surgical resection, radio-frequency ablation, trans-catheter arterial chemoembolization (TACE), yttrium-90 microspheres, liver transplantation, chemotherapy, and radiotherapy . Because of the improvement in imaging modalities , extrahepatic metastases (EHM) are reported more frequently than before with an incidence of 15%-17% (1) . The most common sites of EHM are lungs, lymph nodes, bones, and adrenal glands (1). Very rarely HCC can metastasize to the skeletal muscles and subcutaneous tissues (3). In this report, we describe a unique case of HCC metastasizing to the right iliacus muscle. He was treated with sorafenib because he was having large multifocal HCC which was not eligible for curative therapy.

II. PATIENT INFORMATION

65 year old Indian male who is a diabetic presented to me with history loss of appetite and significant loss of weight of one month duration. He denied any history of evening rise of temperature , cough, change in bowel habits, palpitations and sick contacts. In addiction he also denied history of high risk behavior. Upon thorough clinical examination, he was found to be cachexic and had hard hepatomegaly.

A complete blood count and comprehensive metabolic panel was done which showed altered LFT and an alpha feto protein level of 451 ng/ml . His CT abdomen was taken with hepatic protocol which showed moderate hepatomegaly with mildly heterogenous parenchymal attenuation , surface nodularity and rounding of contour suggestive of Hepatic parenchymal disease . There were multiple focal lesions in right and left lobe of liver which were arterially enhancing , hyperdense in portal phase and had washout in venous phase. There were three lesions in right lobe , one measuring 8.7 x 3.3. cm in segment 4, another lesion measuring 5.3 x 2.6 cm in segment 7 and another lesion 5.6 x 2.5 cm in segment 8. There was one lesion measuring 3.4 x 2.3 cm in segment 2 of left lobe. Right branch of portal vein was dilated and was not well opacified with arterial enahancement suggestive of tumour thrombus. There was a 6.2 x 7.7 cm lesion in Right iliacus muscle. Fine needle aspiration cytology was done from muscle mass which showed that it was an iliacus muscle metastasis from HCC. He had multiple focal lesion liver which was beyond any curative therapies and hence was started on palliative treatment with sorafenib and currently he is under close follow up.

III. DISCUSSION

Despite improvement in diagnois and treatment of HCC, mortality remains high because various factors are involved in the treatment like functional status of the patient, liver function etc. Currently, there are many staging systems described for HCC with few of them describing the tretaemnts. Sorafenib is the first systemic agent that has demonstrated modest improvement in survival in advanced HCC by 3 months .

Hematogenous spread to the lungs, lymph nodes, bones, and adrenals which are the commonest sites for EHM in HCC (1). Vascular invasion is an indicator of poor prognosis in HCC. Metastasis of HCC to muscle tissue is very rare.

Only 17 cases of skeletal muscle metastasis of HCC have been reported in the literature so far (4). Skeletal muscle metastasis is rare , probably due to the contractile properties of the muscle, lactic acid accumulation in muscle and presence of tumor suppressors (5). In previous reports, tumors that most frequently metastasized to skeletal muscle were of pulmonary origin, and the skeletal muscles most frequently involved in metastasis were the diaphragm (67.8%) and the iliopsoas muscle (29.4%) (6).

IV. CONCLUSION:

In conclusion, in order to improve the survival in HCC, early detection and treatment is necessary. In order to make a correct diagnosis of any soft tissue mass, a possibility of HCC metastasis should be included in the differential diagnosis. This will prevent unnecessary excision and delay in making the diagnosis.

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