UNUSUAL PRESENTATION OF HEPATOCELLULAR CARCINOMA - a rare case presentation and literature review

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Abstract:
Hepatocellular carcinoma (HCC) is the sixth most common cancer and the third most common cause of cancer related death globally. Chronic hepatitis B infection is the most common cause of HCC. Bony metastasis of HCC is usually rare and the most common sites involved are Vertebra, Pelvis, ribs and Skull. We report an unusual case of HCC metastasis presenting as a swelling of the sternum in a non cirrhotic individual.

Keyword: Hepatocellular carcinoma, Metastases, Chest wall

INTRODUCTION:
HCC is the most common malignant tumor of the liver and the burden of this devastating cancer is expected to increase further in coming years. There are striking global variations in the incidence of HCC, particularly high in much of east Africa and sub-saharan Africa and lower, but on the increase in north America and in Europe. It is usually occurs in the fourth decade, at least a decade earlier in Asia & Africa. It is more common in males. Chronic Hepatitis B infection is more common etiological factor. Extra hepatic metastases common in lungs, regional lymph nodes, kidneys, bone marrow and adrenals. Metastases to bone is usually rare and to Sternum have been rarely reported in the literature.

CASE REPORT:
A 60 yr old male was referred with complaints of swelling and pain over the anterior chest wall of 6 months duration. He is a beedi smoker & non-alcoholic. His physical examination revealed a 10×7 cm mass over the anterior chest wall, firm in consistency. His examination of abdomen revealed a heteroechoic lesion in the right lobe of liver measuring 11.5×10.5cm, suggestive of HCC of the RT lobe of liver. Role of PET scan is not well defined for the detection of...
extra hepatic metastases in HCC, hence it was not contemplated for this patient.

X-ray chest showed osteolytic lesion of the sternum. CT scan chest showed osteolytic lesion of sternum with heterogeneous lesion in the liver.
Cytological examination of the fine needle aspirate from the sternal lesion and core needle biopsy from the liver lesion are consistent with hepatocellular carcinoma. Immuno histo chemistry was not done on the cytological and on the histopathological specimen for this patient. Evaluation showed that the patient had Barcelona clinic liver cancer (BCLC) stage C disease with Child-Pugh class A status and he was started on Tab. Sorafenib 200 mg twice daily and treated with Radiotherapy to Sternum. The sternal swelling decreased in size with the radiotherapy and the patient is on sorafenib and monthly follow up.

**DISCUSSION:**
Metastatic HCC has an aggressive course & a poor outcome with a mean survival of less than 1 yr if left untreated 4. HCC is the intersection of two diseases- Liver disease and cancer5. The treatment of HCC depends entirely on the tumor stage. The BCLC stage is the most widely accepted staging system. The commonest site of extrahepatic metastases are lung, lymph nodes, & musculoskeletal system. Among the Bone metastases Vertebra, Pelvis, Ribs& Skull are common 6. Hematogenous dissemination to the pulmonary capillary network is the likely mechanism of spread to the lung with the reported prevalence of 18-60-%. Lymphatic spread to the regional nodes particularly perihepatic, peripancreatic & retroperitoneal was found with the frequency of 27-42%. Bone lesions comprise 6-39% of all extra hepatic metastases and are usually multiple and lytic 7 8. Here the patient presented with an unusual site of metastases. The common etiologic factor is HBV B & C, followed by Alcohol and Aflotoxin 9. Here the patient presented with Primary HCC in a non cirrhotic background with negative viral markers. Surgical management for early stage disease includes partial resection or Orthoptic liver transplantation (OLT) 10. Local ablative therapy including Chemoeembolisation (TACE) and targeted therapy Sorafenib are used for advanced disease. An unusual case of HCC presenting with antero lateral chest wall metastases in a 76 yr old male was reported in the literature 11. Two cases were presented elsewhere with lytic long bone lesions in Hepatocellular carcinoma. One of the case was treated with anthracycline based chemotherapy along with Radiotherapy &
Bisphosphonates and other one was treated with supportive care. In a series of 4953 patients analyzed by Seung Up Kim et al, only 37 patients had bone metastasis and only one of them had a clavicle and sternal metastasis at the same time, while there is only a handful of reports with sternal metastasis being the first and sole site of metastases.

CONCLUSION:
We are presenting an unusual manifestation of Hepatocellular Carcinoma for its rarity. Bony metastases of HCC are considered as one of the most frequent extrahepatic metastatic sites and occur as multiple metastases in most patients. Patients with metastases to bone had a median survival of 6.7 months and usually located in the spine, the pelvic bones and the ribs, while localization in the upper and lower limbs is considered rare and sternal metastases is even rarer, as in our case.

References:
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