The Imaging Negative Hepatic Lesions: A Rare Case of Infiltrative Hepatocellular Carcinoma.

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Introduction

- Hepatocellular carcinoma (HCC) is the 6th most common cancer and the 4th leading cause of cancer related death world wide [1].
- The infiltrative type is most difficult to diagnose with imaging because of its inherently defined micronodules involving a segment or entire hepatic parenchyma without an identifiable mass.
- HCV remains the primary risk factor for HCC in the United States.
- Prognosis is poor and estimated at a 5 year survival of <20%.

Case presentation

A 61 year old female with a past medical history of HCV cirrhosis with sustained virological response (SVR) presented with abdominal pain and worsening lower extremity edema.
Examination findings: distended abdomen, bilateral lower extremity pitting edema.
Significant work up findings: AST of 159unit/l (15-37), platelet of 109k/cmm (150-440), total bilirubin of 1.2mg/dl (0.2-1), AFP of >20,000ng/ml (0.5-8).
Right upper quadrant ultrasound, CT and MRI identified no hepatic mass, Fig A
Due to markedly elevated AFP, HCC was highly suspected. The patient proceeded to having an EGD-EUS fine needle guided aspiration done showing multiple infiltrative hepatic lesions, fig B and, biopsy was taken.
Biopsy report malignant cells positive for AFP with cells reactive for glypican-3 and negative for Hep-par1, supporting the diagnosis of HCC, fig C.

Treatment and follow up

The patient was referred to oncology and a month later, she died.

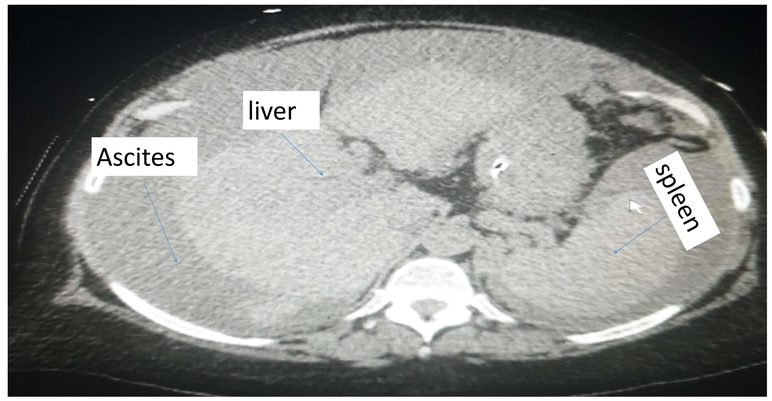

Fig A: CT abdomen showing cirrhotic liver with no defined hepatic mass.

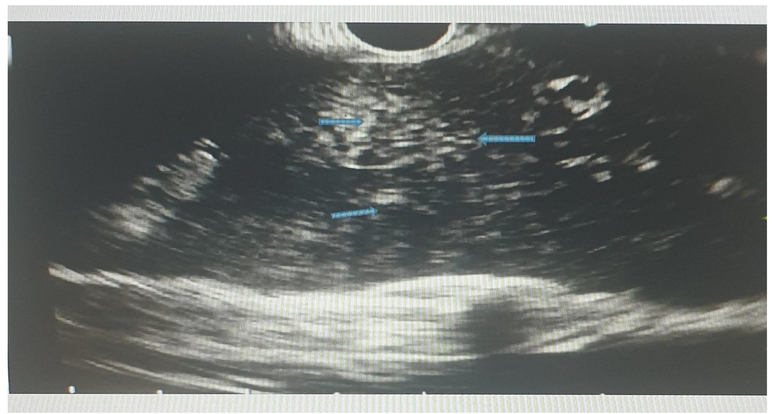

Fig B: EGD-EUS showing multiple infiltrative hepatic lesions.

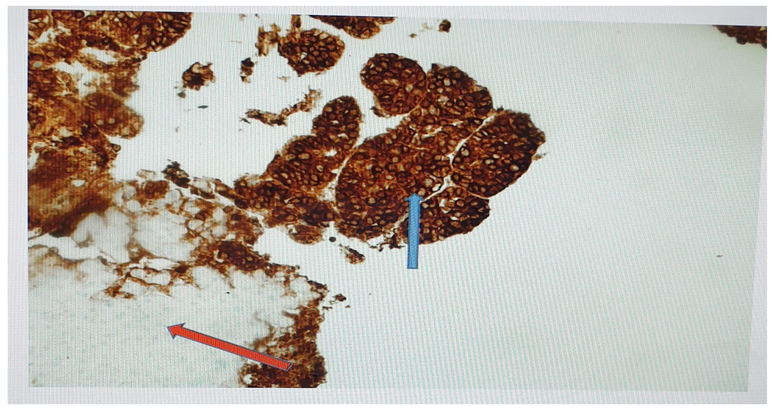

Fig C; glypican-3 immunostain with strong diffuse staining (blue arrow), background non neoplastic liver (red arrow).

Discussion

- SVR is associated with decreased risk of HCC.
- Cirrhosis directly increases risk of developing HCC
- Diagnosis of HCC can be achieved non invasively using abdominal ultrasound, CT, MRI and EUS-FNA.
- Abdominal ultrasound is the initial modality recommended for HCC surveillance, with a sensitivity for detecting early HCC about 47% [2].
- AFP cut off level of >20ng/ml has a sensitivity of 60% with low specificity
- A level of > 400ng/ml is diagnostic of HCC with a specificity of almost 100%. Incremental changes in AFP is associated with increased mortality rate.
- The median survival rate of infiltrative HCC with AFP of > 400 is estimated to be 5 months
- EUS is superior to CT in detecting small hepatic lesions, with a sensitivity of 100% compared to 71% of CT [3]
- The data on the treatment of infiltrative HCC is still under review. Intra-arterial therapy and chemotherapy like sorafenib have shown a survival benefit
- We recommend that EUS be considered an integral modality while investigating HCC.

References

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