Hepatic Angiosarcoma Masquerading as Benign Venous Malformation of the Liver: A Commonly Underdiagnosed Case

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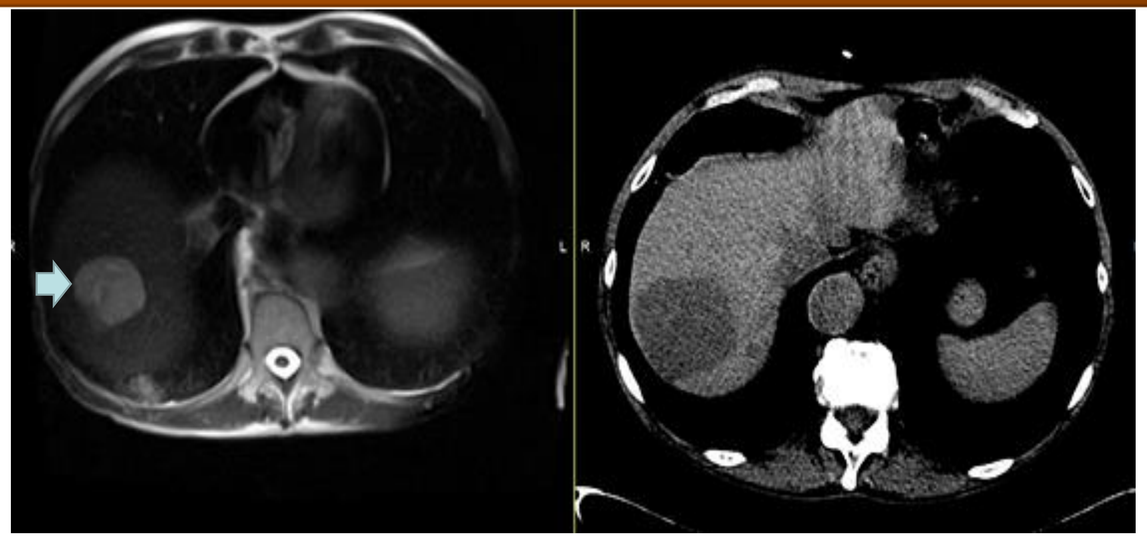
Introduction

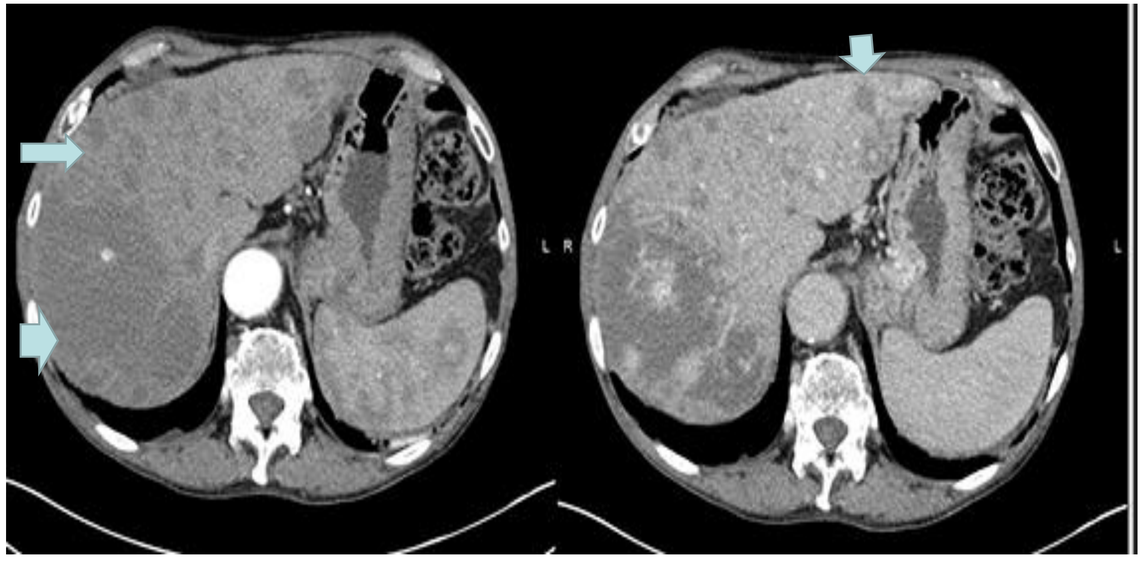
- Hepatic angiosarcoma (HA) is uncommon yet notoriously deadly, accounting for 0.1- 2% of total primary liver malignancies.
- It is clinically challenging to diagnose due to its nonspecific presentation and absence of tumor markers.

Case Presentation

- A 75 y/o male with a history of COPD and GERD presented with complaints of chronic fatigue.
- A routine CT chest identified an incidental liver mass 11 x 8 mm along with lower esophageal thickening and pulmonary nodules.
- Initial lab work-up showed AST/ALT-44/45 u/l, ALP-94 u/l, T Bil- 0.6 mg/dl, and acute hepatitis panel was negative.
- The patient was discharged for outpatient follow-up. Due to persistent symptoms, two months later, he was then referred to gastroenterology.
- He denied exposure to vinyl chloride, arsenic, thorium dioxide, and anabolic steroids. Tumor markers came back normal, CA 19-9 -8 u/ml, & AFP- 1.82 ng/ml.
- An MRI showed benign venous malformation, but a liver biopsy confirmed HA. Eventually, the patient started chemotherapy with a suspicion of metastasis based on CT imaging.
- He could not tolerate the side effects of Paclitaxel after two doses, so he opted for hospice care and was discharged.



Left: MRI 4.5 cm subcapsular mass features most consistent with a reading as venous malformation. No capsular enhancement or restricted diffusion are identified ruling out HCC.
Right: CT showing hypoattenuating lesion in the right hepatic lobe concerning for metastatic deposit.



Left: Interval development of numerous hypodense, metastatic-appearing hepatic lesions involving both hepatic lobes.
Right: Innumerable enhancing liver lesions representing marked intrahepatic progression of disease.

Discussion

- HA is a rare high grade malignant mesenchymal tumor that occurs <2% of liver malignancies and third most common.
- Usually seen in age >60 with a male predominant of 4:1
- While ~75% of cases have unknown etiology, common risk factors include exposure to anabolic steroids, radiation, thorium dioxide, arsenic, and vinyl chloride.
- Patient complaints are nonspecific and include jaundice, ascites, weight loss, abdominal pain and fatigue. Metastasis is common at the time of presentation affecting spleen, lung, adrenals, lung and bone.
- CT/MRI can help in diagnosis however, as in our case can be very nonspecific.
- HA is resistant to chemotherapy and radiation with a median survival rate is 6 months to 2 years.

Conclusion

- Hepatic angiosarcoma rapidly progresses with a potential for metastases and increasing mortality.
- Often, radiological findings can be misleading in the initial stages, warranting an invasive approach, liver biopsy, to confirm the diagnosis.
- Due to its rare occurrence and absence of specific symptoms, we encourage a multi-disciplinary approach, particularly involving gastroenterology during the initial stages, to decrease the mortality in these cases.
- Also, additional research is required to improve diagnostic accuracy, establish treatment guidelines, and guide our future therapies.

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