Case report

Idiopathic Granulomatous Hepatosplenic lesion in a case of Chronic liver Disease

ABSTRACT

Granulomatous liver disease is common and can indicate underlying systemic issues. Liver biopsy findings may confuse clinicians. Some patients have abnormal liver panels without symptoms, while others show systemic manifestations. Identifying the underlying cause allows proper treatment, but in some cases, even extensive workup fails to provide a diagnosis, leading to frustration. Here, we present a similar case of chronic liver disease with hepatosplenic granulomas where the diagnosis remains elusive despite an extensive workup.

Keywords: [Granulomatous liver disease , chronic liver disease , autoimmune hepatitis , cirrhosis , portal hypertension]

1. INTRODUCTION

Granulomatous liver disease is a common problem and often provides a clue to the presence of underlying systemic disease. Findings of hepatic granulomata on liver biopsy often confuse the clinician and consultant. granulomatous liver disease may present with an abnormal liver panel but no symptoms. Patients may present with manifestations of the systemic process. Identification of the systemic process may allow proper therapy and improvement in the natural history of the underlying disease state. Careful assessment of systemic symptoms and appropriate laboratory testing frequently permits a specific diagnosis. This article reviews how to address consultation regarding a finding of hepatic granulomata on liver biopsy.

2. PRESENTATION OF CASE

A 42 year-old female presented with a three-week history of abdominal distension , jaundice from last two week . No history of fever , vomiting or arthralgia .her past medical history included complain of generalised pruritis and type two diabetes

mellitus. There was no history of similar complain or gastrointestinal malignancy in her family. She also denied history of any contact to tuberculosis patient ,travel, illicit sexual or iv drug abuse or intake of complementary medicine . She is mother of two child with no history of abortion .her medications included metformin. Clinical exam shows normal built , afebrile , hemodynamically stable with no peripheral lymphadenopathy . Abdomen examination suggest no tendernes shifting dullness was present and hepatosplenomegaly noted .

Laboratory studies showed white blood cell count of 8600 cell /cu.mm, hemoglobin of 10.3 gm/dl,normocytic hypochromic and hematocrit of 31.1% with platelets count 3.64lakh/cu.mm ,peripheral blood smear reported normal with no abnormal or immature cell. Serum calcium 8.9mg/dl. liver profile showed total bilirubin of 2 mg/dl, total protein of 7.2 g/dl, albumin of 2.7 g/dl,globulin of 4.5g/dl , AST of 135 u/l, alt of 66 u/l, and alkaline phosphatase of 1281 u/l with GGT of 775 u/l. Ascitis fluid analysis suggestive of high SAAG with low protein transudative features. Etiological workup showed negative results for biomarker of hepatitis b virus , hepatitis c virus , HIV and autoimmune marker like Ana , anti mitochondrial antibody . immunoglobulin level showed normal result. EGD showed grade one esophageal varices with portal hypertensive gastropathy. Chest x ray showed normal lung parenchyma with no evidence of mediastinal lymhadenopathy and fibrosis.
Ultrasonograph of abdomen showed : Multiple ill defined iso to hypoechoic lesion liver and spleen and hepatosplenomegaly with normal billiary anatomy

Computed tomography of the abdomen (Figure 1) showed multiple ill defined iso to hypoechoic lesion involving all the segments of liver , with no increased vascularity spleen was enlarged with similar type of diffuse lesion with normal gallbladder and pancreas. No dilatation of portal vein , common bile duct noted or ihbr noted.

Magnetic resonance imaging (figure 2) showed liver; spleen showed multiple hyperintense lesion of varying sizes diffusely scattered .no evidence of extrahepatic billiary obstruction or intrahepatic obstruction.

Liver biopsy (figure 3,4) revealed numerous non caseous granulomas were scattered throughout the hepatic lobules with evidence of fatty infilteration , mallory denk bodies and fibrotic seta suggestive of fibrosis. Bile ducts appeared normal in number and morphology and hepatic vasculature was unremarkable.

Extensive workup done to rule out causes of hepatic granulomas like acid fast bacillus stain , PCR of tissue done showed negative of any microorganism . Tissue further subjected to different stain to rule out storage disorders like wilson`s disease and hemochromatosis showed negative results.

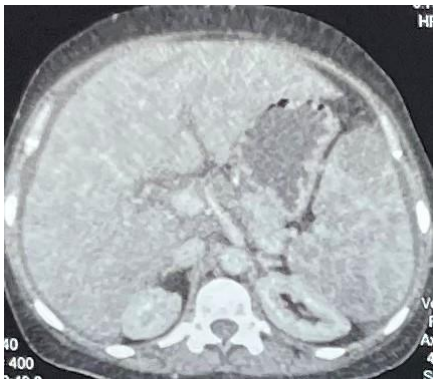

Fig 1 Computed tomography of the abdomen

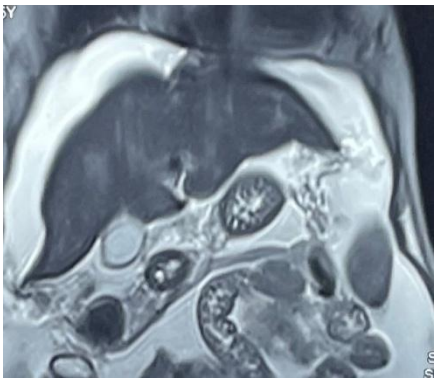

Fig 2 Magnetic resonance imaging

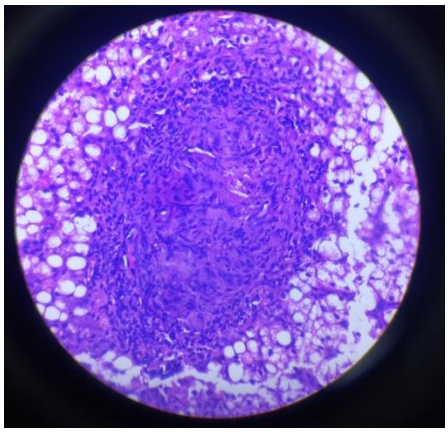

fig 3 Liver biopsy image 1

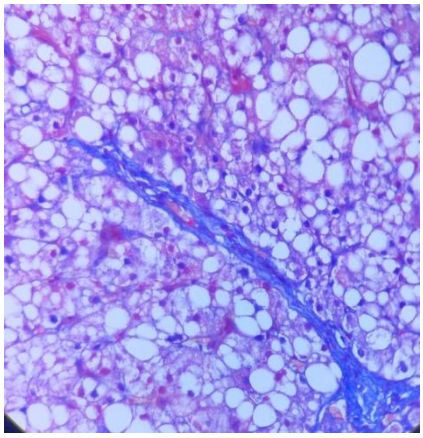

fig 4 Liver biopsy image 2

OUTCOME : The patient started on weight based dose of ursodeoxycholic acid for raised alkaline phosphate and pruritis and diuretics for ascitis , her symptoms and liver function test showed improvement. The patient will continue to be monitored for further changes or complication.

3. DISCUSSION

Hepatic granulomas, which are localized accumulations of inflammatory cells, can be observed in around 2% to 10% of patients who undergo liver biopsies. [1] Hepatic granulomas are linked to various conditions. In india, the predominant causes include tuberculosis, sarcoidosis, drug-induced reactions, neoplastic diseases, and primary biliary cholangitis. [2] Occasionally, isolated granulomas can be an unexpected discovery in a normal liver biopsy or in individuals with existing liver conditions like viral hepatitis, without any connection to their clinical symptoms or response to treatment. [3]

Indeed, a significant proportion, ranging from 10% to 36%, of granulomas are found to have no identifiable cause even after undergoing thorough and comprehensive evaluations. [4)]

4. CONCLUSION

In conclusion, while a significant portion of hepatosplenic granulomas may persist as idiopathic and benign entities, the power of effective communication should not be underestimated. By fostering an environment of collaboration and understanding, healthcare providers can embark on a more focused and pragmatic diagnostic journey. This patient-centered approach not only mitigates the burden of exhaustive and fruitless investigations but also instills a sense of empowerment in patients and their families as they navigate the complexities of this enigmatic medical condition.

CONSENT (WHERE EVER APPLICABLE) : TAKEN

ETHICAL APPROVAL (WHERE EVER APPLICABLE) : TAKEN

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