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Introduction

Sarcoidosis is a systemic disorder of unknown etiology characterized by the formation of non-caseating granulomas and can affect any organ in the human body. The most frequently involved organs are lungs and hilar lymph nodes; however, involvement of the liver has been described in prior literature. The spectrum of hepatobiliary involvement can range from asymptomatic hepatic granulomas, and minimally deranged LFTs to symptomatic disease complicated with cholestasis, portal HTN, and cirrhosis. We report a case of asymptomatic LFT elevation in a patient with a prior history of sarcoidosis.

Case Description

An 82-year-old African American woman with a past medical history of coronary artery disease, hyperlipidemia, hypertension, Asthma, and Sarcoidosis presented with asymptomatic elevated LFTs discovered by her PCP. The patient denied any complaints from the GI or any other organ system standpoint. Prior blood transfusions, needle sharing, IV drug use, excessive alcohol use, herbal/alternative medicine use, recent changes in medications, or suicidal ideation were ruled out by meticulous history taking. Initial AST, ALT, ALP, GGT, T. bilirubin, and CK measured 783, 532, 1041, 443, 1.6, and 5,699, respectively. (Table 1) Imaging ruled out gallstone and intra-abdominal pathologies, prompting further investigation of possible infiltrative/infectious/autoimmune/neoplastic etiology. Subsequent laboratory findings ruled out thyroid abnormalities, viral or toxic hepatitis, hemochromatosis, Wilson's Disease, autoimmune hepatitis, and primary biliary cholangitis. The liver biopsy showed granulomatous hepatitis and noncaseating (non-necrotizing) epithelioid granuloma favoring sarcoid deposition. (Figure 1)

Table 1. LFT trend

Test name	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day of discharge
AST	783	673	566	469	429	355	267	237
ALT	532	441	395	335	330	284	238	224
ALP	1041	920	898	822	780	715	631	653
Total Bilirubin	1.6	1.5	1.3	1.0	0.9	0.9	0.9	1.0
CK	5699	4154	3225	2721	2378	1402	725	437

Figure 1. Liver Biopsy Result

US GUIDED BIOPSY LIVER

Final Diagnosis

A. Liver, needle biopsy:

Liver needle biopsy specimen showing noncaseating (nonnecrotizing) epithelioid granuloma in one portal tract. Portal tracts, showing mild acute and chronic inflammation and ductular reaction with focal bile duct damage. Focal mild lobular inflammation and mild sinusoidal dilatation are also seen.

Trichrome stain shows portal, perivenular and perisinusoidal fibrosis. Reticulin stain highlights areas of fibrosis and otherwise normal reticulin network. Iron stain is negative for iron deposition. PASD stain shows focal nonspecific increase in intracytoplasmic granules. GMS stain is negative for fungal organisms. AFB stain is negative for mycobacterial infection.

Findings are compatible with granulomatous hepatitis. Differential diagnosis includes sarcoidosis (favored), infectious process and primary biliary cholangitis (less likely).

Please correlate with clinical, radiologic and serologic findings.

Discussion

This case highlights the importance of considering hepatic sarcoidosis as a potential cause of LFT elevation, especially in a patient with a prior history of sarcoidosis. In such patients, after common causes of LFT elevations have been ruled out based on the patient's history, imaging, blood tests, and screening for autoimmune diseases, liver biopsy should be considered earlier in the management course to reach a timely diagnosis. This is especially important as not all cases of hepatic sarcoidosis require treatment, so considerations for treatment vs. closer follow-up could be decided as soon as the liver biopsy results are available. This would significantly decrease the burden on healthcare resources by avoiding unnecessary testing and aiding in timely and accurate management.

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