

Hepatic Sarcoidosis Presenting as Cholestatic Liver Injury Exacerbated by Nitrofurantoin Use

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Published: 05 May 2023

Introduction: The liver is a common site of involvement in patients with sarcoidosis with 50-80% of patients having hepatic involvement at diagnosis. However, it is largely asymptomatic and <15% of patients present with symptoms of hepatic injury. We report a patient with hepatic sarcoidosis presenting as cholestatic liver injury exacerbated by nitrofurantoin use.

Case Presentation: A 67-year-old African American female presented due to 1 week of diffuse itching, shortness of breath, and scleral icterus with darkened urine. Medical history was significant for type 2 diabetes, hypertension, and hyperlipidemia. Patient denied alcohol use and was a lifetime non-smoker. Family history was significant for sarcoidosis in father. Notably, the patient took nitrofurantoin for a UTI one week prior to presentation. Lab results showed elevated direct bilirubin 5.2, total bilirubin 8.8, ALK PHOS 950, ALT 126, and AST 229. Ultrasound of the liver and MRCP showed hepatic steatosis and gallbladder sludge. Liver biopsy showed cholestatic granulomatous hepatitis with stage 2-3 bridging fibrosis. This patient's presentation was deemed most consistent with hepatic sarcoidosis. Nitrofurantoin is a well-known cause of hepatic injury, but has rarely been reported as causing granulomatous disease exacerbating underlying sarcoidosis.

Discussion: While the liver is a common site of involvement for sarcoidosis, the majority of patients are asymptomatic. Hepatotoxic drugs can exacerbate symptoms and lead to diagnosis. In those with clinical symptoms, a cholestatic pattern is most common. Glucocorticoids and methotrexate are common treatments. However, there is currently a lack of randomized controlled studies regarding treatment and surveillance of hepatic sarcoidosis.