

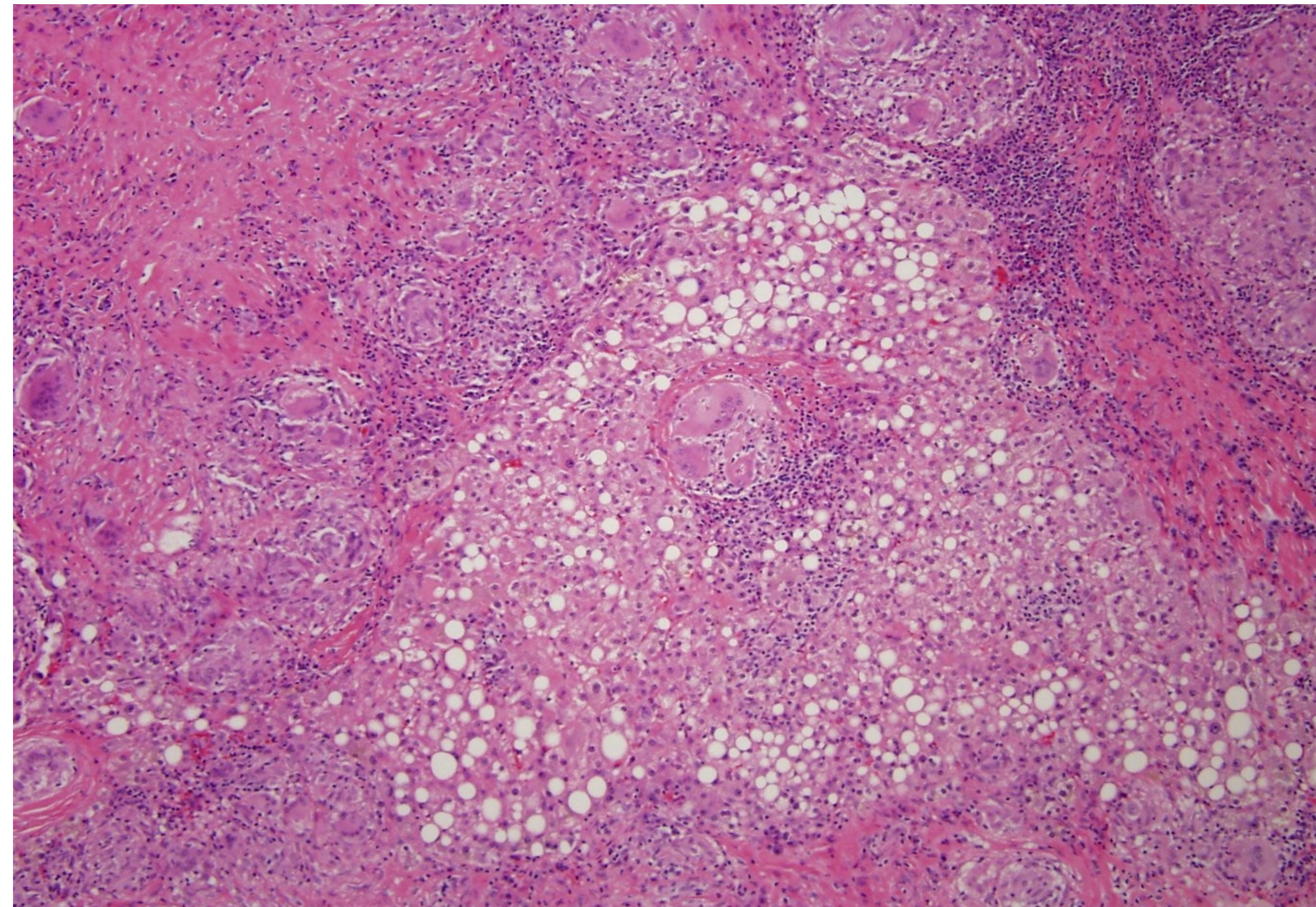
Hepatic Sarcoidosis Presenting as Cholestatic Liver Injury Exacerbated by Nitrofurantoin Use

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Introduction

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



Liver biopsy showing cholestatic granulomatous hepatitis.

Case Presentation

A 67-year-old African American female presented with 1 week history of diffuse itching, shortness of breath, and scleral icterus with darkened urine. Medical history was significant for type 2 diabetes, hypertension, and hyperlipidemia without history of liver disease. Patient denied alcohol use or smoking. Family history was significant for sarcoidosis in her father. Notably, the patient took nitrofurantoin for a urinary tract infection one week prior to presentation.

Labs results showed elevated direct bilirubin 5.2, total bilirubin 8.8, alkaline phosphatase 950, ALT 126, and AST 229. ANA, AMA, SMA, and hepatitis panel were negative.

CT of chest, abdomen and pelvis showed abdominal and mediastinal lymphadenopathy. Liver ultrasound and MRCP showed hepatic steatosis and gallbladder sludge without biliary dilation.

EUS with FNA of a mediastinal lymph node displayed numerous granulomas. Liver biopsy showed cholestatic granulomatous hepatitis with stage 2-3 bridging fibrosis. Biopsy was negative for A1AT, acid-fast bacilli, and fungal organisms.

This patient's presentation was deemed most consistent with hepatic sarcoidosis and prednisone therapy was initiated. The patient reports improvements in pruritus and scleral icterus.

Conclusions

While the liver is a common site of involvement in patients with sarcoidosis, the vast majority of patients are asymptomatic and do not require treatment. Hepatotoxic drugs can exacerbate the symptoms of hepatic sarcoidosis and lead to clinical diagnosis. Nitrofurantoin is a well-known cause of hepatic injury, but has rarely been reported as causing granulomatous disease exacerbating underlying sarcoidosis. In those with clinical symptoms, a cholestatic pattern is most common. Glucocorticoids and antimetabolites such as methotrexate are commonly used treatments. However, there is a lack of large randomized controlled studies regarding the treatment and surveillance of hepatic sarcoidosis at this time.

References

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