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A DIAGNOSTIC DILEMMA

Gastroenterology

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ABSTRACT

The etiology of autoimmune hepatitis is uncertain but the disease can be triggered in susceptible patients by external factors such as viruses or drugs. AIH usually develops in individuals with a genetic background mainly consisting of some risk alleles of the major histocompatibility complex (HLA). Additionally, environmental factors such as exposure to certain toxins or infections may also contribute to the development of the disease in genetically susceptible individuals. Physicians should take great caution while obtaining medical history from individuals with autoimmune hepatitis, since identifying possible triggers can aid in disease management and the prevention of relapses.

KEYWORDS

INTRODUCTION

The etiology of autoimmune hepatitis is not fully understood, but it is believed to involve a combination of genetic, immunological and environmental factors.[1,2] Genetic predisposition plays a role, as certain genes have been identified to be associated with an increased risk of developing autoimmune hepatitis.[3] Dysregulation of the immune system, specifically an abnormal immune response against the body's own liver cells, is thought to be a key factor in the development of autoimmune hepatitis.[4] Environmental triggers such as viral infections or exposure to certain drugs may also contribute to the development of the condition.[5] Many drugs are associated with AIH phenotypes that endure even after the drug is discontinued, indicating that they may stimulate latent autoimmunity.[6,7] Distinguishing between genuine autoimmune hepatitis (AIH) induced by drugs and immune mediated drug induced liver injury continues to be a formidable task.

Case Report

We report the clinical presentation of a 52-year-old woman born to a non-consanguineous marriage. She had a history of bilateral varicose veins and had been taking homoeopathic medication for over a decade. Since 10 days, she had been experiencing fatigue, abdominal bloating, and yellowing of the urine. Throughout her hospitalisation, she complained of an appetite loss. A physical examination revealed jaundice and scleral icterus. Laboratory investigations revealed T.Bili-6.19, AST-405, ALT 851, ALP 283, and INR 1.21 at the time of admittance. Symptomatic medications reduced these values, but the patient returned three weeks later with an altered LFT. Viral etiologies for both hepatotropic and nonhepatotropic viruses were negative, as was the workup for metabolic diseases. An elevated level of total IgG was detected with negative hepatic autoimmune profile.USG and CT of abdomen and pelvis revealed nothing significant. Liver biopsy showed interface and lobular hepatitis with apoptotic hepatocytes, multinucleated hepatocytes,hepatocyte rosette formation and bridging necrosis.Severe active hepatitis, marked by mild hepatocanalicular bilirubinostasis and steatosis, was also observed. Prednisolone 50 mg was administered to her on a daily basis, and her liver enzymes improved.

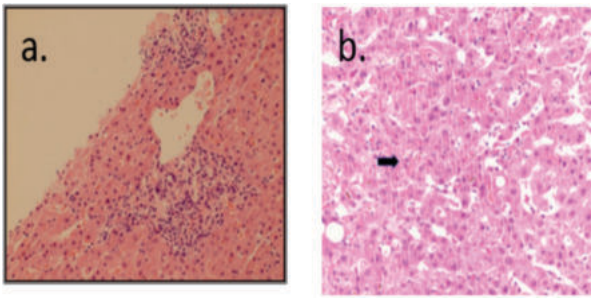

Figure 1: a. Mild, predominantly lobular lymphohistiocytic and lymphoplasmacytic inflammation with focal interface hepatitis. b. Hepatocanalicularbilirubinostasis (marked with an arrow) with mild lobular activity

DISCUSSION

Autoimmune hepatitis is an inflammatory liver disease where the body's immune system mistakenly attacks liver cells, leading to inflammation and damage.8 In some instances, exposure to certain drugs, including herbal medications, can trigger an autoimmune response, exacerbating liver injury.9,10 Sidhu et al.11 reported a study that showed the incidence of acute liver injury resulting from the usage of cimetidine. Stephens et al12 conducted a prospective multicentre investigation that identified Statins (31%) and antimicrobials (23%) as the primary medicines responsible for inducing drug-inducedAIH. Herbal products, perceived by many as natural and harmless, can carry potential risks, including drug-induced liver injury (DILI) and the development of autoimmune hepatitis (AIH).[13,15] Several studies have highlighted the association between herbal medicines and liver injury. Navarro et al.[16] emphasized that herbal and dietary supplements can lead to hepatotoxicity, contributing to liver inflammation and damage. The lack of standardized manufacturing practices and regulatory oversight for herbal products poses a challenge in assessing their safety. This variability in composition and quality increases the risk of adverse effects on the liver, necessitating a cautious approach in patients with a history of herbal medicine use.

We observed an instance of drug-induced autoimmune hepatitis caused by the extended use of herbal remedies. This case highlights the importance of considering herbal medicines as a potential cause of liver injury, especially in patients with prolonged use. It is recommended that physicians should adopt a comprehensive approach when dealing with patients who have a history of herbal medicine intake. This involves obtaining a detailed medication history, including herbal and dietary supplements, during clinical assessments. The awareness of potential hepatotoxicity associated with herbal products is critical for early recognition and appropriate management of drug-induced autoimmune hepatitis.

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