CLINICAL CASE

METABOLIC DYSFUNCTION ASSOCIATED WITH PATCHY HEPATIC STEATOSIS

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Abstract

MASLD (Metabolic Dysfunction Associated Steatotic Liver Disease) is a recently clarified clinical entity, which we consider very useful for the management of this kind of patients in primary care. We describe a case diagnosed as a result of the setup and development of an urban ultrasound point of care. The patient was a 27-year-old woman who drank beer on weekends (500 cc/24 h) and showed slight elevations of transaminases and gamma-glutamyl transpeptidase in two metabolic controls (AST 63, ALT 144, and GGT 227). The patient is leading a completely normal life with control of her cardiovascular risk factors.

Keywords: primary care, fatty liver, diagnostic imaging, general practitioners.

Introduction

Patchy hepatic steatosis is a form of fat accumulation in the liver. Instead of the uniform distribution seen in generalized hepatic steatosis, patchy hepatic steatosis is characterized by the presence of specific areas of fat accumulation in the liver, leaving other areas of the liver relatively free of fat. This irregular distribution can be detected by imaging tests[1,2].

Hepatic steatosis may be associated with various conditions, such as obesity, insulin resistance, type 2 diabetes, excessive alcohol consumption, viral hepatitis, among others. It is important to monitor this condition because, in some cases, it can progress to more serious liver diseases, such as metabolic dysfunction-associated steatohepatitis (MASH)[3,4] or liver cirrhosis. Management generally involves lifestyle

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Ortega Calvo M, Gabaldon Rodríguez I, Oviedo López L, Sánchez Pelaz L, Domínguez Bejarano L, Rodríguez García R. Metabolic dysfunction associated with patchy hepatic steatosis. RAPD 2025;48(5):xx-xx. DOI: 10.37352/2025485.4

changes, such as diet[5] and exercise, and in some cases, specific medications and regular medical follow-up.

Clinical case

The patient was a 27-year-old woman who drank beer on weekends (500 cc/24 h) and presented with a very slight elevation of transaminases and gamma-glutamyltranspeptidase in two metabolic tests (AST 63, ALT 144, and GGT 227). She had gained about 15 kilograms in the last three years. The patient underwent a clinical ultrasound in primary care (Figures 1-3) , which revealed patchy hepatic steatosis. She was referred to the local gastroenterologist with these ultrasound images. She continues to be monitored by a specialist with a diagnosis of hypertransaminasemia, probably related to MASLD (Metabolic Dysfunction Associated Steatotic Liver Disease). She has been advised to follow a low-fat diet and abstain completely from alcohol.

Discussion

Ultrasound supports various specialties[6-8], in their diagnostic and therapeutic work. Family physicians have the opportunity to receive specific training in ultrasound for solving clinical problems in their workplace[9].

MASLD (Metabolic Dysfunction Associated Steatotic Liver Disease) is a recently clarified clinical entity[10], that is very useful for managing these patients in primary care[11,12]. MASLD encompasses a wide spectrum of hepatic manifestations ranging from hepatic steatosis, steatohepatitis, or advanced forms of liver disease such as cirrhosis and its various forms of decompensation. The common feature is ectopic intrahepatic fat deposition. In this case, the diagnosis arose from patchy hepatic steatosis identified by clinical ultrasound. The patient in question is leading a completely normal life with control of cardiovascular risk factors.

Just over thirty years ago, a similar case with a clear alcoholic etiology mobilized several departments[13] at a tertiary care hospital[14]. In addition to developing clinical reasoning mechanisms[15], this study defends the efficiency of clinical ultrasound in healthcare centers ("point-of-care ultrasound")[16].

MASLD is an increasingly prevalent health problem that increases costs, especially when associated with type 2 diabetes mellitu[17]. Farnesoid X factor agonists appear to have a positive effect on fibrosis and steatosis[18] in these patients.

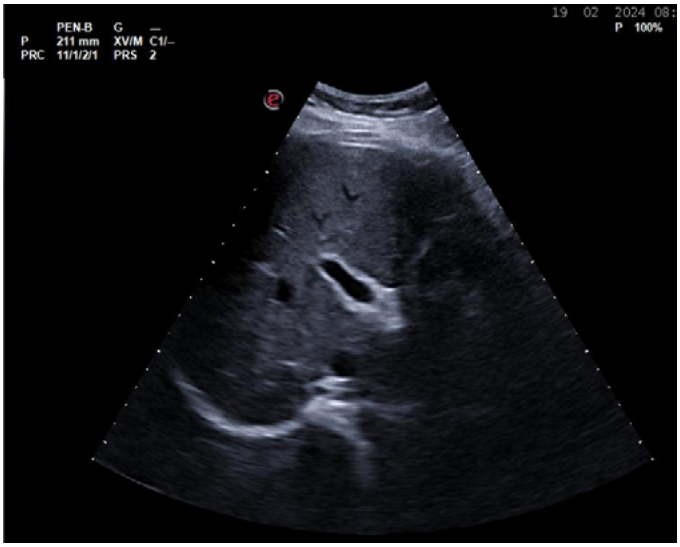

Figure 1. ***Heterogeneous echogenicity of the liver with hyperechogenicity of segments III, IV, V, VI, and VII.***

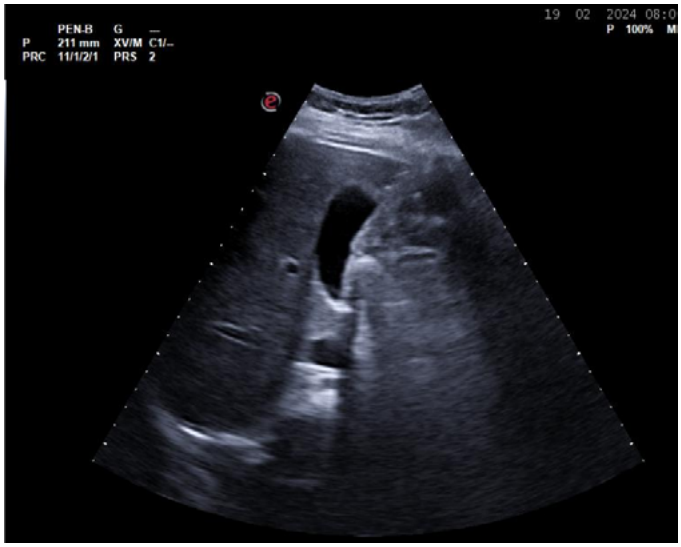

Figure 2. ***Hyperechogenicity of segments V and VI, adjacent to the gallbladder, which shows no abnormalities.***

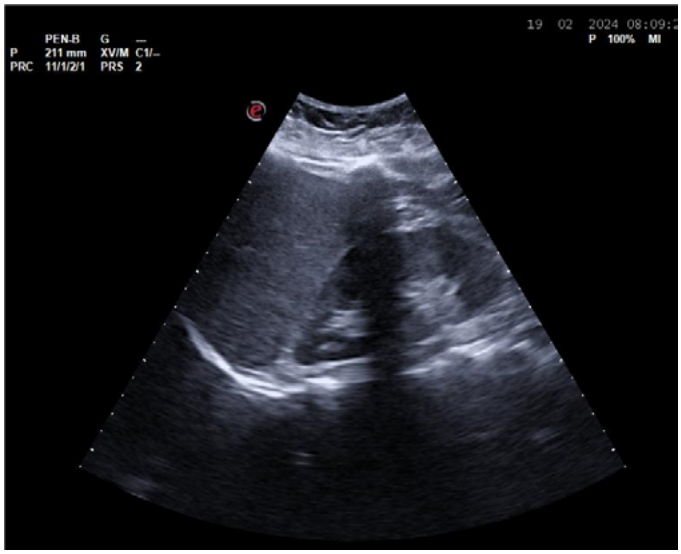

Figure 3. ***Hyperechogenicity of segments V, VI, and VII with respect to the renal cortex, which appears hypoechoic with respect to the liver (they should be seen with similar echogenicity).***

DOI: 10.37352/2025485.4

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DOI: 10.37352/2025485.4