

# Incidental Biliary Hamartomas and MASLD Diagnosis – A Case Report

Vanessa Brito Lopes\* & Rui Pinheiro Dias

USF Planalto, ULS Lezíria, Portugal

\*Corresponding author: Vanessa Brito Lopes, USF Planalto, ULS Lezíria, Portugal.

Submitted: 29 January 2026 Accepted: 05 February 2026 Published: 11 February 2026

**Citation:** Brito Lopes, V., & Pinheiro Dias, R. (2026). Incidental Biliary Hamartomas and MASLD Diagnosis – A Case Report. *Sci Set J of Med Cli Case Stu*, 5(1), 01-03.

## Abstract

**Background:** MASLD (Metabolic Dysfunction-Associated Steatotic Liver Disease) is the updated term for hepatic steatosis associated with metabolic syndrome, affecting 30% of the global population. This case illustrates how an incidental finding can serve as a trigger for lifestyle changes.

**Case Description:** A 48-year-old married male office worker, healthy, presented to the clinic. He was a smoker and consumed 72 g of alcohol per week, with no regular medication. The patient sought consultation due to an incidental finding on an abdominal ultrasound performed during check-up, revealing chronic liver disease. Blood tests showed elevated GGT, total cholesterol, and LDL. He was asymptomatic with a normal physical examination. A CT scan was requested, revealing hamartomas. Lifestyle modifications targeting dyslipidemia were recommended, and the patient was referred to Internal Medicine. Four months later, at the hospital consultation, the patient had lost 8 kg due to the modifications. Other causes of liver disease were ruled out, leading to the diagnosis of MASLD.

**Discussion and Conclusion:** This case is relevant for discussing the role of check-ups and the management of hepatic steatosis. Studies indicate that check-ups in asymptomatic populations do not reduce cancer or cardiovascular mortality. Hepatic steatosis, now termed MASLD, is increasingly relevant in clinical practice due to its association to metabolic and cardiovascular risk factors, emphasizing the need for preventive interventions. Family physicians, with their holistic approach and continuity of care, are in a privileged position to promote sustainable lifestyle changes tailored to each family's needs.

**Keywords:** Metabolic Dysfunction-associated steatotic liver disease (MASLD), Hepatic Steatosis, Biliary Hamartomas, Incidental Findings, Lifestyle Modification, Health Check-ups.

## Introduction

MASLD (metabolic dysfunction-associated steatotic liver disease) is the most updated term for hepatic steatosis associated with metabolic syndrome, previously known as NAFLD (non-alcoholic fatty liver disease). It is estimated to affect around 30% of the adult global population, with a progressive increase in recent years, largely driven by rising obesity rates. MASLD is currently the leading cause of chronic liver disease worldwide [1, 2].

It is essential to exclude secondary causes of liver disease, such as autoimmune hepatitis, hepatitis B and C, hemochromatosis, and chronic use of certain medications, among others. These patients have an increased risk of progression to cirrhosis and,

eventually, hepatocellular carcinoma, particularly when additional risk factors are present. Disease progression tends to be faster in the presence of metabolic comorbidities [1, 2].

Lifestyle modifications including a balanced diet with avoidance of ultra-processed foods and regular physical activity aimed at weight reduction has a major impact on disease improvement and may even lead to complete resolution of steatosis. Importantly, these patients usually carry a high cardiovascular risk, which remains the leading cause of mortality in this population [1, 2].

To date, there is no specific pharmacotherapy approved exclusively for MASLD. Current management focuses on controlling

cardiovascular and metabolic risk factors, including blood pressure, dyslipidemia, glycemia, and body weight. Given the well-established benefits of GLP-1 receptor agonists on glyce-mic and weight control, these agents may and should be consid-ered in patients with MASLD who also have type 2 diabetes and obesity [1, 2].

This case illustrates how an incidental finding during a routine evaluation became a key trigger for meaningful lifestyle change.

### Case Report

This case concerns a 48-year-old male patient, autonomous, married, and working as an administrative employee. He was previously healthy. His only past medical history was left arm surgery following trauma more than 10 years earlier.

Regarding toxic habits, he had smoked approximately five ciga-rettes per day for 30 years and reported alcohol consumption of about 75 g per week. He denied illicit drug use, as well as the use of supplements or herbal products. Family history was unre-markable. He was not taking any regular medication.

The patient attended an urgent consultation in February 2024, accompanied by his wife, due to abnormal findings on an ab-dominal ultrasound performed in a private setting as part of a routine “check-up,” which caused him significant anxiety. Blood tests had also been requested at that time.

He had never previously been evaluated at his assigned primary care unit, as he usually sought care in the private sector. The ab-dominal ultrasound performed on 15/02/2024 reported: “Liver with blunt contours, markedly heterogeneous and coarse texture, globally micronodular with diffuse hyperechoic foci in a linear distribution. Findings are most suggestive of advanced chronic liver disease, to be correlated clinically and laboratorially and further characterized by CT. Small slightly nodular hyperechoic area in the right lobe measuring 10 mm, possibly a small heman-gioma or a focus of parenchymal fibrosis.”

### Laboratory Tests Showed Elevated GGT, as well as Increased Total Cholesterol and LDL Cholesterol.

The patient felt well and was completely asymptomatic. On physical examination, mucous membranes were pink and hy-drated, without jaundice. Cardiopulmonary auscultation was normal. Abdominal inspection showed hair distribution appro-priate for age and sex. On palpation, the abdomen was soft, depressible, and non-tender in all quadrants, with no palpable masses or organomegaly. The fluid wave test was negative, and bowel sounds were present. Fibrosis-4 (FIB-4) Index for Liver Fibrosis was calculated and given a 1.04 points, wich meant Ad-vanced fibrosis excluded.

Given these findings, the results were explained to the patient, and further evaluation with an abdominal CT scan was request-ed. The CT, performed later that month, showed: “Globose liver with regular contours, mild hypertrophy of the left and caudate lobes, and signs of mild steatosis. Diffusely heterogeneous struc-ture due to innumerable millimetric hypodense nodules in both lobes, possibly representing biliary hamartomas; to be further evaluated by MRI. (...) Kidneys with normal tomodensitometric appearance, rare bilateral calculi not exceeding 2–3 mm. Sim-

ple cortical cyst in the left kidney. No mesenteric or para-aortic lymphadenopathy.”

The patient was reassessed on 01/03/2024 to discuss the CT re-sults and was extremely apprehensive about their significance. His wife was visibly anxious and tearful during the consultation. Lifestyle and dietary measures targeting dyslipidemia were ini-tiated, and he was referred to an Internal Medicine consultation at his local hospital.

### Hospital Follow-Up

He was seen in Internal Medicine on 19/06/2024, at which time a weight loss of 7–8 kg over three months was documented, re-sulting from dietary changes, increased physical activity, and alcohol abstinence. Further laboratory tests and liver MRI were requested, and he was reassessed on 18/09/2024.

Laboratory results showed negative viral markers (HBV non-im-mune; HIV negative; HCV negative) and normal metabolic markers (including alpha-1 antitrypsin, ceruloplasmin, iron studies, and thyroid function). Immunoglobulin testing showed mildly decreased IgM, but the remaining autoimmune panel (an-ti-mitochondrial antibodies, anti-smooth muscle antibodies, and liver-specific antigens) was unremarkable. ANA was positive at the upper limit of normal, but IgG levels were normal and trans-aminases were not elevated; therefore, criteria for autoimmune hepatitis were not fulfilled.

MRI performed on 24/09/2024 reported: “Liver of normal size, with regular contours and preserved morphology. Multiple mil-limetric cystic lesions are seen, more prominent in the right lobe and especially in posterior segments, consistent with probable biliary hamartomas. No suspicious nodules identified. No bil-iary dilatation. Gallbladder normally distended, with regular walls and no intraluminal stones. No significant abnormalities in the spleen, pancreas, adrenal glands, or kidneys. Cortical cyst measuring about 13 mm in the lower pole of the left kidney. No lymphadenopathy or free fluid in the upper abdomen. No significant abnormalities in the included thoracic structures. No suspicious bone lesions.”

At follow-up on 09/10/2024, a total weight loss of approximate-ly 12 kg since the initial evaluation was documented, achieved through diet and alcohol abstinence.

As the patient remained asymptomatic, he was discharged from Internal Medicine consult with recommendations for cardiovas-cular risk factor control through a balanced diet (including con-tinued alcohol abstinence), regular physical activity, and annual laboratory and ultrasound surveillance.

### Discussion

This case is particularly relevant for two main reasons: the de-bate surrounding routine check-ups in asymptomatic individu-als, and the clinical approach to hepatic steatosis.

The benefit of general health check-ups in asymptomatic popu-lations has been widely studied, with evidence showing no sig-nificant reduction in overall mortality, including cancer-related or cardiovascular mortality. Nevertheless, due to limited health literacy, a substantial proportion of the general population con-tinues to seek “routine check-ups” from family physicians [3-5].

This creates challenges in primary care resource management and may undermine the doctor–patient relationship. Additionally, private healthcare settings often request complementary diagnostic tests with limited clinical indication, leading to incidental findings, the vast majority of which have no clinical relevance. However, for patients, these findings can carry considerable psychological impact and may generate the perception that a problem was “missed” by physicians who did not previously request such tests.

In this particular case, the abdominal ultrasound increased stress and anxiety regarding the possibility of serious liver disease. Importantly, the therapeutic approach did not actually require advanced diagnostic testing: cardiovascular and metabolic risk factor control is already a core function of family physicians, as is disease prevention.

Paradoxically, in this case, the incidental finding acted as a powerful motivator for the patient to adopt a healthier lifestyle, a change that might not have occurred otherwise. This highlights the importance of improving health literacy and patient education.

On the other hand, hepatic steatosis, now termed MASLD, has gained increasing attention due to its rising prevalence, largely driven by obesity. It is an entity that should be actively addressed in clinical practice and reinforces the need for tight control of cardiovascular risk factors, given the potential for disease progression.

Management focuses on metabolic risk control (hypertension, glycemia, body weight, dyslipidemia) through a balanced and varied diet, regular physical activity, and alcohol abstinence.

#### Conclusion

This case highlights the growing clinical relevance of MASLD as a manifestation of systemic metabolic dysfunction and reinforces the central role of primary care in its identification and management. Although the initial imaging findings generated considerable patient anxiety and triggered an extensive diagnostic workup, they ultimately revealed a condition whose cornerstone treatment lies in lifestyle and metabolic risk control rather than advanced interventions.

Paradoxically, an incidental finding from a non-indicated check-up became a powerful catalyst for sustained behavioral change.

The patient achieved significant weight loss, alcohol abstinence, and improved metabolic awareness, interventions known to modify the natural history of MASLD and reduce long-term cardiovascular risk, the leading cause of mortality in these patients.

This case also illustrates two broader lessons: first, the need to balance the risks and benefits of diagnostic testing in asymptomatic individuals, particularly regarding incidental findings and their psychological impact; and second, the unique position of family physicians to transform clinical encounters into opportunities for prevention. Through continuity of care and a holistic approach, primary care plays a decisive role in promoting sustainable lifestyle changes and mitigating the progression of metabolic and hepatic disease.

Ultimately, MASLD should be viewed not only as a liver condition but as a marker of systemic cardiometabolic risk, one that demands early recognition, patient education, and long-term follow-up centered on lifestyle medicine.

#### References

1. European Association for the Study of the Liver (EASL), European Association for the Study of Diabetes (EASD), & European Association for the Study of Obesity (EASO). (2024). EASL–EASD–EASO clinical practice guidelines on the management of metabolic dysfunction-associated steatotic liver disease (MASLD). *Journal of Hepatology*, 81(3), S0168-8278(24)003295.
2. Chan, W., Chuah, K. H., Rajaram, R., Lim, L.-L., Ratnasingham, J., & Vethakkan, S. R. (2023). Metabolic dysfunction-associated steatotic liver disease: A state-of-the-art review. *Journal of Obesity & Metabolic Syndrome*, 32(3), 197–213.
3. Oliveira, J. (2021). Mais vale prevenir que remediar? A dificuldade de decisão. *Revista Portuguesa de Medicina Geral e Familiar*, 37(2), 187–189.
4. Sudarsanam, T. D., & Tharyan, P. (2013). Are routine general health checks in healthy adults effective in preventing morbidity and mortality due to cardiovascular diseases and cancer? Summary of the evidence and implications for public health programmes. *Clinical Epidemiology and Global Health*, 1(1), 19–22.
5. Himmelstein, D. U., & Phillips, R. S. (2016). Should we abandon routine visits? There is little evidence for or against. *Annals of Internal Medicine*, 164(7), 498.