MASH isn't just a little fat (“gordurinha”) — it's a disease that screams silently, and our biggest challenge is to give it a voice before the damage becomes invisibly irreversible.

Just like a microphone turned off during an urgent alert, MASH goes unnoticed by clinicians, patients, and health systems. It hides behind routine tests, advances without symptoms, and is often underestimated as harmless. But behind the label of "fat in the liver", there is a real risk of fibrosis, cirrhosis, cancer and cardiovascular death. To give voice to this disease is to illuminate what is neglected today — it is to recognize the signs, expand access to diagnosis, and transform silence into action.

Track Summary

MASH is a silent disease that threatens millions of lives without being heard. The absence of symptoms, the lack of knowledge about diagnostic methods by health professionals, and the lack of public policies make the scenario even more critical. Professionals who accompany patients with risk factors, such as cardiologists and endocrinologists, have a strategic role in the early identification of the disease and, therefore, expanding their knowledge about diagnostic tools can speed up screening and improve the patient's journey. This track invites innovators to give MASH a voice through scalable and affordable solutions that raise awareness, promote early screening, facilitate diagnosis, and integrate metabolic care. Technologies such as portable exams, artificial intelligence for screening, and health education platforms can transform the fight against this condition. The goal is to break the silence, save lives and ensure that more people have access to a timely diagnosis and a healthier future.

About the disease

The liver is an essential organ for the proper functioning of the body. It works by filtering toxic substances from the blood, produces important proteins, and helps control metabolism. Despite its importance, the liver can be affected by various diseases that compromise its health without causing symptoms.

One of these diseases is MASH, an acronym for *steatohepatitis associated with metabolic dysfunction*, which happens when there is an abnormal accumulation of fat in the liver, which causes inflammation and damage to the organ's cells.[7][8] This condition is linked to problems such as obesity, type 2 diabetes, dyslipidemia, sleep apnea, hypertension, and other metabolic changes.[7][8]

Over time, if left untreated, MASH can progress to more serious conditions, such as permanent scarring of the liver (fibrosis, which in its advanced stages can progress to cirrhosis), liver cancer, and even the need for a liver transplant. It is estimated that 90% of people are not diagnosed. In addition, people with MASH have a higher risk of developing cardiovascular disease, which is the leading cause of mortality in these cases.[3][8]

The diagnosis of MASH is simple, however, because it is a silent disease and still little known, it usually occurs late – especially because they do not present symptoms in the early stages. Although there are simple and effective methods, such as FIB-4 — which uses age and common

laboratory test results — and liver elastography — which evaluates liver stiffness — these tests are still little known in clinical practice.[10] Liver biopsy, on the other hand, despite being the gold standard for diagnosis, is highly invasive and uncomfortable, in addition to having its own limitations in terms of accuracy, which limits its application on a large scale.

Prevalence of MASH

Latin America faces an alarming prevalence of liver diseases associated with metabolic dysfunction. Liver fat affects 44% of the population [4], exceeding the global average of 23.67% [5], while 7.1% evolve to MASH — also above the world average of 5%.[4]

It is estimated that about 32 million people live with MASH in Latin America. [1][2] One-third of people with obesity already have the condition [1][2], and approximately 65 percent of people with type 2 diabetes have fat accumulation in the liver [5][6] —about 40 percent of whom have already developed significant fibrosis [5][6]. In addition, 9 out of 10 cases of MASH remain undiagnosed, and individuals with the disease have up to three times higher cardiovascular and mortality risk.[1][2]

The presence of fat in the liver increases the risk of fatal and non-fatal cardiovascular events by 64%, reaching 158% in the most severe cases. [3] Coexistence with other chronic non-communicable conditions, such as obesity, type 2 diabetes, prediabetes, dyslipidemia, and metabolic syndrome, further aggravates the condition.[7][8] The more severe the comorbidities associated with MASH, the greater the urgency for integrated prevention and management strategies.

Challenges

1. **Widespread underdiagnosis**
   MASH is a silent condition, which means that most patients do not experience symptoms in the early stages. This contributes to 9 out of 10 cases remaining undiagnosed, even among people with risk factors such as obesity and type 2 diabetes.

2. **Low medical familiarity with diagnostic methods**
   Despite the existence of tools such as FIB-4 and hepatic elastography, which allow the evaluation of the liver without the need for biopsy, these methods are still little used in clinical practice. Many health professionals are unaware of these options or do not have access to them.

3. **Lack of widely disseminated clinical guidelines**
   The guidelines for screening and management of MASH are not well known by health professionals, which makes it difficult to perform them, especially in primary care. This generates insecurity about when to investigate and how to conduct care.

4. **Structural and access barriers**

The availability of equipment such as FibroScan (liver elastography) is limited in many regions. In addition, ultrasound elastography — a more affordable alternative — is still little known by most doctors.[10] Added to this are obstacles related to reimbursement, the absence of specific public policies, and the lack of local epidemiological data that justify large-scale investments.

5. **Low level of public awareness**
   The general population and part of the medical community are unaware of MASH and its risks. Even people with risk factors do not associate their metabolic conditions with possible liver damage, which reduces the demand for medical evaluation.

6. **Lack of integration between health areas**
   Since MASH is strongly associated with other chronic conditions such as diabetes, obesity, and dyslipidemia, an integrated approach between different medical specialties would be essential. However, this integration is still limited, which compromises screening and early management.

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