

## **Non-alcoholic steato-hepatitis: a common disease, easy to diagnose, essential to prevent**

**Press release from the French National Academy of Medicine (\*)**

Alcohol is not the only product that is bad for the liver. Non-alcoholic hepatic steatosis (overload of the liver with fat or “fatty liver”) is one of the most frequent liver diseases affecting 25 to 30% of the world population, a prevalence that is constantly increasing, and up to 70% of patients with metabolic diseases such as diabetes (1). This disease is due to lipid and especially carbohydrate overnutrition (hence the name of "soda disease") associated with a sedentary lifestyle in a dysmetabolic context (overweight, diabetes, high blood pressure, excess blood lipids). It reflects an abnormal storage of energy in the form of lipids. In 10 to 20% of cases, it can lead to liver inflammation ("non-alcoholic steatohepatitis" or NASH) which can cause liver fibrosis. This fibrosis, in its most severe form, is, in fact, a cirrhosis with the risk of developing a liver cancer. Patients with hepatic steatosis also are exposed to the same complications as those affected with the general metabolic syndrome (in particular, cardiovascular damage and the occurrence of extra-hepatic cancers) and to the associated prognosis (2).

The diagnosis of non-alcoholic hepatic steatosis is now based on a non-invasive approach (i.e., no longer requiring a liver biopsy): the clinical data are still important to detect dysmetabolic signs or liver damage, but it is mainly the biological and imaging data that, largely thanks to the work of the French Hepatology School, make it possible to confirm liver damage and to specify its severity (3). Steatosis, suggested by simple blood parameters (hyperglycemia, hypercholesterolemia, hyperferritinemia without iron increase), is confirmed by the ultrasound examination which shows a "shiny" liver aspect. The fibrosis existence and the evaluation of its severity are based on: i) blood tests such as the simple "FIB-4" based on age, transaminases and platelets (3), which is very efficient but not yet sufficiently known by physicians, and second-line tests (Fibrometer, Fibrotest); ii) imaging by FibroScan® which explores the elasticity of the liver. On the therapeutic level, many drugs (especially those targeting diabetes) are in advanced therapeutic trials but, to date, no marketing authorization has been granted (4). Liver transplantation, for which complicated steatotic liver is the second most common indication in the United States, has similar results to those obtained for the other indications, but must take into account the risks associated with the dysmetabolic context. **Preventive measures, in terms of dietary and physical hygiene, are the key weapons** to prevent the occurrence of this disease, which is largely linked to lifestyle habits (excess of sugary foods and drinks, lack of physical activity) and has a major economic impact (5).

**The National Academy of Medicine, taking into account the high and increasing prevalence and potential severity of nonalcoholic steatotic liver, which make this condition a public health challenge, makes the following recommendations (6):**

- To raise awareness among the medical profession, health authorities and the general public of the existence, frequency and severity of this syndrome, that can progress to cirrhosis and liver cancer;

- To insist on the major importance of prevention, by implementing a policy of resolute fight against carbohydrate and lipid overnutrition as well as sedentary lifestyle among the public (from school age) as well as health professionals and students;
- To inform about the now non-invasive diagnostic approach; this information should particularly focus on the interest of simple examinations such as the FIB-4 blood test and elastometry by Fibro Scan®;
- To raise awareness of National Health Insurance on the importance of facilitating access to these explorations and on the reimbursement of non-invasive tests in this indication;
- To encourage further research to finalize, as quickly as possible, the development of currently very promising drugs.

#### References

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(\*) Press release from the Academy's Rapid Communication Platform validated by the members of the Board of Directors on December 15, 2022.