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Looking for a new name for Non-alcoholic fatty liver disease in Spanish: Esteatosis Hepática Metabólica (EHmet)

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The name of a disease does not follow any defined protocol, being usual the scientific community's acceptance of several variants based on the customs of every location. There are examples of prevalent entities showing curious processes to be denominated, such as diabetes mellitus. The first word, “diabetes”, comes from the Greek dia (through), be (to go), and tes (factor), while the second word, “mellitus”, comes from Latin melli (honey). As a consequence, and literally, diabetes mellitus means “the sweet factor that goes through…”, narrating the reality of an excessive and sweet diuresis. Thus, we could deduce that it is not required a definition representing exactly the pathophysiology of the particular disease. Likewise, primary biliary cirrhosis changes its name to primary biliary cholangitis1 because most of the patients do not develop cirrhosis and, thus, the denomination generated anxiety, confusion, and stigmatization due to the society generally believes cirrhosis is associated with unhealthy habits2. Some intermediate options to change the name to non-suppurative destructive cholangitis had a low success, although it was precise, due to the lack of empathy and the agreement with the patients. By contrast, diseases denominated by their discoverer's name are less controversial, such as Wilson’s disease, although they can also generate confusion over time because new phenotypes can be identified beyond the initial description.

Whether liver steatosis had received the name of Ludwig’s disease, honoring its discoverer in 1980, there had not had any debate about the name at this moment.
Non-alcoholic fatty liver disease (NAFLD) has received different denominations from the initial description, including *non-alcoholic steatohepatitis* (NASH). All the terms have tried to reflect the existence of a liver disease characterized by fat (steatosis) not attributable to alcohol intake. However, the lack of consensus regarding the precise denomination has made no mention of this entity in the CIE 10 section “11.12 Liver diseases”. Therefore, the two more relevant aspects of proposing a change of a denomination should be: a) the current term generates confusion into the society and could stigmatize the patients; b) the potential benefits associated with the changed concept (beyond the denomination), in terms of management of the disease, including an improvement in the access to the healthcare resources (Figure 1). Furthermore, some questions should be recommendable to comment on NAFLD:

1.- It is a negative diagnostic (“non-alcoholic”), so it generates confusion and stigmatization to the patient (often, they need to give explanations). Also, knowing the amount of alcohol intake is very complex, as neither questionnaires (e.g., AUDIT) nor available biomarkers in clinical practice (e.g., carbohydrate-deficient transferrin), nor ANI index, allow classifying the patients unequivocally. On the other hand, the endogenous production of alcohol by some bacteria, such as alcohol-producing *Klebsiella pneumoniae* (HiAlc Kpn) or other proteobacteria, can play a role in the progression of the disease. Taking all together, the inclusion of “non-alcoholic” into the name is incorrect.

2.- The alteration of both carbohydrate (insulin resistance) and lipidic metabolism (lipolysis, oxidation, and de novo lipogenesis) are pathogenic and critical events in this entity. Moreover, the leading triggers of this disease are metabolic disorders such as diabetes mellitus, obesity, and metabolic syndrome. Thus, the term “metabolic” should be included in the new denomination.

3.- Fat (steatosis) is consubstantial in the appearance of this disease, although it has a controversial role in its progression because the decreasing of fat over time could be related to a poor prognosis. On the other hand, the presence of steatosis in the denomination would prevent confusions with other metabolic diseases not directly related to the production of fat, such as hemochromatosis or Wilson’s disease.
4.- The term liver/hepatic must be maintained in the denomination, due to the liver disease is the relevant affectation and responsible of the morbidity despite it is a systemic disease with affectations in several organs.

Non-alcoholic fatty liver disease is a dynamic entity, which progresses and regresses, having defined at least four phenotypes: slow progressors, rapid progressors, patients with stable disease, and those who regress completely. Both genetics and the impact of implementing lifestyle changes allow explaining, at least in part, this variability. Depending on the age, ethnicity, alcohol intake, sex, genetic background, and microbiota10, among other factors, several disease patterns are observed, with different subtypes resulting in a variable natural history11, as well as a different response to the treatment12. Consequently, it is a systemic, dynamic, and heterogeneous disease, showing an impairment of various physiological axis, including the metabolic-liver and gut-liver axis13. This entity requires a precise and accurate denomination, which allows us to close to its pathophysiology and natural history, as well as its diagnosis and treatment, avoiding terms that could stigmatize or confuse us. The search for a new denomination must consider all the disease's singularities14, prevent wrong concepts, and, particularly, generate a place of interaction and consensus that is beneficial for patients and professionals.

Taking the HEPAMET registry opportunity, which belongs to the Spanish Association for the Study of the Liver (AEEH) and Centro de Investigación Biomédica en Red de Enfermedades Hepáticas y Digestivas (CIBEREHD), we proposed, following the Delphi approach, to make a consensus about the Spanish name of this entity. An online session was performed to carry out brainstorming and propose different terms and acronyms. Finally, after a rigorous selection process, the HEPAMET registry group considered that the more appropriate denomination was Metabolic-Associated Fatty Liver Disease (MAFLD). This new terminology contains all the pre-established requisites, including a positive definition, avoiding the use of the word “alcohol”, and including the terms “liver/hepatic”, “metabolic,” and “fat/steatosis”. Also, the acronym is easy to pronounce. However, it will be the scientific community's acceptance and inclusion in the routine use and the ability to make more substantial the social awareness and economic impact of this entity, which will definitely change
the name from NAFLD to MAFLD.

REFERENCES

Figure 1. Negative aspects and consequences derived from the current terminology “Non-alcoholic fatty liver disease” from the patient’s perspective.