

79618_Auto_Edited.docx

Name of Journal: *World Journal of Hepatology*

Manuscript NO: 79618

Manuscript Type: EDITORIAL

Metabolic associated fatty liver disease: The new nomenclature and approach with the hot debate

Metabolic associated fatty liver disease

Abstract

An international panel recently proposed an update to the terminology and diagnostic criteria for fatty liver disease. The authors proposed a change in the nomenclature from non-alcoholic fatty liver disease (NAFLD) to metabolic (dysfunction) associated fatty liver disease (MAFLD). This single letter change we believe, heralds the dawn of a new era in clinical practice and in clinical and basic research, on what is the commonest liver disease. The new nomenclature with the easily applicable approach stimulated the enthusiasm of the researchers worldwide with the resultant large number of publications over the last two years. Several studies have been published recently, with tremendous evidence of the superiority of MAFLD criteria over NAFLD criteria. Many studies in different geographic areas of the world including the USA, Europe, and Asia on a large number of patients proved that the utility of MAFLD criteria was higher than the NAFLD criteria in different aspects of Fatty liver diseases. Consequently, many societies, physicians and nurse groups, health stakeholders, representatives of regulatory sciences, and others endorsed the new nomenclature. Here, we highlight the endorsement of the new name by different societies and groups and the outcome of different studies on the new nomenclature in addition to a short discussion of the debate arisen by some experts.

Key Words: Non-alcoholic fatty liver disease; Metabolic associated fatty liver disease; liver disease; fibrosis; new nomenclature; redefinition

Fouad YM. Metabolic associated fatty liver disease (MAFLD): the new nomenclature and approach with the hot debate. *World J Hepatol* 2022; In press

Core Tip: An international panel recently proposed an update to the terminology and diagnostic criteria for fatty liver disease. The authors proposed a change in the nomenclature from non-alcoholic fatty liver disease (NAFLD) to metabolic (dysfunction) associated fatty liver disease (MAFLD). This single letter change we

believe, heralds the dawn of a new era in clinical practice and in clinical and basic research, on what is the commonest liver disease. The new nomenclature with the easily applicable approach stimulated the enthusiasm of the researchers worldwide with the resultant large number of publications over the last two years. Several studies have been published recently, with tremendous evidence of the superiority of MAFLD criteria over NAFLD criteria. Many studies in different geographic areas of the world including the USA, Europe, and Asia on a large number of patients proved that the utility of MAFLD criteria was higher than the NAFLD criteria in different aspects of Fatty liver diseases. Consequently, many societies, physicians and nurse groups, health stakeholders, representatives of regulatory sciences, and others endorsed the new nomenclature.

INTRODUCTION

The World Health Organization (WHO) has motivated scientists, doctors, and healthcare providers to use the appropriate medical name and change the name according to the patient's interest and the medical care provided to him. This call by the WHO was to overcome the stigmas and inaccuracies that may confer upon people, regions, and economies^[1]

In the recent medical history, renaming of the diseases involved primary biliary cirrhosis, schizophrenia, epilepsy, autism, and others with ongoing trials to change the “noncommunicable diseases” term into a better positive name to gain more medical care by governments, societies, and stakeholders^[2]

Since, 1980 when the NAFLD name was introduced (3), several trials were done to rename the disease by different scientists and societies for different reasons till 2019, when Eslam *et al* proposed a new name changing the traditional NAFLD to MAFLD (metabolic dysfunction associated liver disease) (4). The single-letter change means a lot for researchers, physicians, and patients. The authors explained their vision of new nomenclature by linking the fatty liver name to the metabolic syndrome which is the most common and most serious etiology of fatty liver diseases and was under-

evaluated when using the older nomenclature. Moreover, the new nomenclature gives the clinical community a chance to avoid the stigma of alcohol intake, avoid the negativity of NAFLD nomenclature, and overcomes trivialization (2). The simplified criteria of diagnosis of MAFLD were put in by an international panel of hepatology experts consensus in 2020 (5). The simplified criteria of MAFLD diagnosis pave the way for easy diagnosis of fatty liver diseases because of easy applicability. The consensus considered the diagnosis of MAFLD based on the presence of steatosis by imaging or histopathology in addition to the presence of diabetes mellitus or obesity/overweight or two out of seven metabolic dysfunction criteria (Figure 1). The new nomenclature and approach better clarify the role of metabolic dysfunctions in fatty liver disease and make the fatty liver closer to its pathophysiology.

The new nomenclature with the easily applicable approach stimulated the enthusiasm of researchers worldwide with the resultant large number of publications over the last two years. Several studies have been published recently, with tremendous evidence of the superiority of MAFLD criteria over NAFLD criteria. Many studies in different geographic areas of the world including the USA, Europe, and Asia on a large number of patients proved that the utility of MAFLD criteria was higher than the NAFLD criteria in different aspects of Fatty liver diseases.

Among the many important findings, MAFLD criteria could identify patients at risk of liver fibrosis more than NAFLD criteria in the US population (6). ¹High diagnostic ability of fatty liver index in the detection of steatosis was seen in patients with MAFLD (7). ¹FIB-4 and NFS could confidently be used to exclude advanced fibrosis in overweight, obese, and severely obese patients with MAFLD (8). MAFLD is associated with a higher incidence of HCC (9). MAFLD (not NAFLD) predicts Extrahepatic malignancy (10). ¹MAFLD was better than NAFLD in identifying patients at high risk of renal diseases (11). In a recent meta-analysis, MAFLD was associated with increased severity of Covid 19 (12). ³Renaming to MAFLD increases awareness of the disease among primary care providers and physicians in other specialties (13). ¹MAFLD change has a positive impact

on clinical trials (14, 15) MAFLD identifies the severity of the coexistence of fatty liver disease with other liver diseases (16,17)

Being convinced by the reasons for changing nomenclature, evidence of the superiority of the new name (MAFLD), and the benefits of the new nomenclature, many international societies, patient groups, stakeholders, nurse groups, representatives of pharma and regulatory science have endorsed the new nomenclature (table 1). In an unprecedented manner, a unique gathering of more than a thousand international experts from more than 135 countries worldwide signed an agreement letter in a global multi-stakeholder endorsement of the MAFLD definition published recently. (18-30)

There are two major hepatology societies, EASL and AASLD, that are not endorsing the new name yet till writing this editorial. The debate arising by experts in these societies focused mainly on the prematurity of change (31). One of the main debates is about non-metabolic or lean NAFLD. Evidence proved that ² the non-metabolic NAFLD group seems to be comparable to subjects with no fatty liver in terms of cardiovascular-related mortality as well as all-cause mortality. Moreover, the non-metabolic NAFLD group seems to be at a very low risk of fibrosis (0.8%) (32). Another concern was about pediatric NAFLD. In a recent study involving 1446 US adolescents (12-18 years) old from the NHANES III, ⁵ MAFLD criteria were met by most US adolescents with elastographic evidence of steatosis (33). One more debate was about clinical trials. In a recently published paper, a group of researchers declared that the new name and approach with positive inclusion criteria lead to easier recruitment of patients and are more likely to give positive results (34). Generally, debates are accepted in medicine, but the evidence, not eminence can settle them. Being ⁴ in the era of evidence-based medicine, we believe that the need for an evidence-based debate is mandatory. Once again, the MAFLD conceptual framework removes the concept that there is no alcohol involved, links the liver disease we commonly see to metabolic dysregulation with its systemic effects, and works better in patient identification, risk stratification, disease awareness, and networking with metabolic disease physicians (35,36).

The important question in the current situation is why some experts do not change their attitude toward the new nomenclature despite the obvious conspicuous evidence. The answer is not clear although, pleasingly, since the very beginning, the weight of evidence appears to have led to the persuasion of an ever-increasing number of stakeholders on the benefits of going on more and more. Another important issue is that experts who advocate against the redefinition despite the robust evidence should explain to the hepatology community, how and why we discard the rapidly progressive growing body of new literature (37)

CONCLUSION

In conclusion, we have a redefinition of very prevalent disease worldwide. The new nomenclature (MAFLD) is simple, with superior utility, and has a tremendous amount of evidence. It is endorsed by many societies and full global adoption is a matter of time.

9%

SIMILARITY INDEX

PRIMARY SOURCES

- 1

Yasser Fouad, Jean - François Dufour, Ming - Hua Zheng, Steven Bollipo et al. " The debate: Is there a Consensus - on - Consensus methodology? ", Liver International, 2022

69 words — 5%

Crossref
- 2

Tsubasa Tsutsumi, Takumi Kawaguchi, Dan Nakano, Takuji Torimura. "Atherosclerotic cardiovascular disease in non - metabolic nonalcoholic fatty liver disease", Hepatology Research, 2022

26 words — 2%

Crossref
- 3

Yasser Fouad, Jean - François Dufour, Ming - Hua Zheng, Steven Bollipo et al. "The NAFLD - MAFLD debate: Is There a Consensus - on - Consensus Methodology?", Liver International, 2022

17 words — 1%

Crossref
- 4

Yasser Fouad, Reda Elwakil, Medhat Elsahhar, Ebada Said et al. "The NAFLD - MAFLD debate: Eminence vs evidence", Liver International, 2020

17 words — 1%

Crossref
- 5

www.researchgate.net

12 words — 1%

Internet

EXCLUDE QUOTES	ON	EXCLUDE SOURCES	< 12 WORDS
EXCLUDE BIBLIOGRAPHY	ON	EXCLUDE MATCHES	< 12 WORDS