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EDITORIAL

Confluence of obesity and MAFLD during Covid-19 pandemic in a developing country

Dear Editor,

The article published by Seidu et al[1] has been of great interest to us, in which they found that high body mass index (BMI) is a risk factor for severe disease and mortality in patients with COVID-19, particularly pronounced in people 60 and older, and in people with BMI > 35 Kg/m^2. This is something that is happening in Peru, in which preliminary findings reported by the Ministry of Health showed that among people who died from COVID-19, 85.5% had obesity as assessed by BMI.

Overweight and obesity continues to be a major public health problem in Peru. It varies with sex and geographic regions. It is known that obesity is more prevalent in Peruvian women (26%) than Peruvian men (19.3%). Currently, 22.7% of Peruvian population have obesity, and the individuals with weight excess, including overweight and obesity, reached 60%.[2] These two conditions are strongly related to prediabetes and diabetes, which exhibit a prevalence of 22.4% and 7%, respectively, in the Peruvian population.[3]

All the risk factors mentioned above are part of an entity that is currently termed metabolic associated fatty liver disease (MAFLD), and the proposed criteria are based on histological, imaging or blood biomarker which evidence of fat accumulation in the liver in addition to one of the following three criteria: overweight/obesity, presence of type 2 diabetes mellitus (T2DM) or evidence of metabolic dysregulation.[4] The worldwide prevalence of MAFLD is estimated to be 24%[5]; however, this prevalence may be underestimated because developing countries have not established diagnostic protocols or recommendations for detection of liver steatosis through abdominal ultrasound, blood biomarkers, or histology. These last three ancillary tests together with the BMI and the evaluation of other metabolic imbalances, define the presence of MAFLD. Exclusion of alcohol-associated fatty liver disease, viral infections, drug-induced liver injury, autoimmune hepatitis at baseline or at follow-up is not a requisite for diagnosis and also should be defined as dual or more aetiology fatty liver disease. These individuals likely have a different natural history and response to therapy than those with liver disease of a single aetiology.[4]

Liver damage exists in up to 76.3% of COVID-19 cases, as demonstrated by altered liver test values.[6] Recent publications link to MAFLD, including obesity as an important risk factor for severity of COVID-19; however, this group of patients has not been thoroughly studied. A systematic review concluded that the risk of severe COVID-19 is 4-6 times higher in patients with MAFLD associated with obesity, fibrosis and age of > 60 years.[5] Until now in our country, no studies have been published linking the prevalence of MAFLD and the severity of COVID-19.

The accelerated increase in obesity and MAFLD in Peru affects without distinction of socio-economic status. For example, in Peruvian people with low economic status there is an important factor that influencing for inadequate treatment or health orientation: the lack of access to effective health systems or health programmes. Currently, national programmes have been implemented in Peru focused only on reducing malnutrition, which can broaden their scope and objectives to consider these increasingly prevalent health problems, with primary educational preventive strategies and timely diagnosis in vulnerable populations.[7]

In conclusion, because of the high prevalence of overweight and obesity, the implementation of effective health strategies focused in health promotion and primary prevention in developing countries is important to help decrease the rates of these diseases and establish a diagnostic protocol for MAFLD, as preliminary studies have highlighted the association between this pathology and its risk factors and the mortality and severity of SARS-CoV-2 infection.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Dr. Jhean Gabriel Gonzales Yovera is the main writer of the body of the text and participated in the literature review. Dr. Marcio Jose Concepción - Zavaleta and Dra. Julia Coronado Arroyo assisted in writing the body of the text, and participated in the literature review. Dr. Diego Martín Moreno Marreros wrote the conclusion, participated in the literature review, in the translation, editing, and preparation of the manuscript.

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