USMF „NICOLAE TESTEMIȚANU"
CONFERINȚA ȘTIINȚIFICĂ ANUALĂ
CERCETAREA ÎN BIOMEDICINĂ ȘI SĂNĂTATE: CALITATE, EXCELENȚĂ ȘI PERFORMANȚĂ
2022 octombrie 2021

ENDOTHELIAL DYSFUNCTION IN NONALCOHOLIC FATTY LIVER DISEASE

Author(s), affiliation
Angela PELTEC, Murad ALNABGHALIE
Discipline of Gastroenterology, Department of Internal Medicine.

Introduction
Endothelial dysfunction is a pathophysiological problem of cardiovascular disease. Nonalcoholic fatty liver disease (NAFLD), as a component of metabolic syndrome, is associated with endothelial dysfunction.

Keywords
endothelial dysfunction, nonalcoholic fatty liver disease.

Purpose
To analyze the role of endothelial dysfunction in development of nonalcoholic fatty liver disease and to examine the markers of endothelial dysfunction.

Material and methods
The database PubMed was used in order to review and select articles according to the keywords. A total of 216 articles matching search criteria were found between 2000-2021.

Results
The present study has been underlined the role of pathophysiological mechanisms of endothelial dysfunction in nonalcoholic fatty liver disease, that involves oxidative stress, inflammation and insulin resistance. Main factor that influence the appearance of endothelial dysfunction is related with nitric oxide (NO) biosynthesis. The markers which associated with regulation of nitric oxide biosynthesis, such as asymmetric dimethylarginine, free fatty acid, lectin-like oxidized low density lipoprotein (LDL) receptor-1 and pentraxin-3, are potential targets in assessment of endothelial dysfunction.

Conclusions
Insulin resistance and inflammation have involved in reduction of NO biosynthesis, that influence appearance of endothelial dysfunction. Markers, such as lectin-like oxidized LDL receptor-1 and pentraxin-3, have considered as potential target in assessment of endothelial dysfunctions.