

DOI: <https://doi.org/10.56936/18290825-3.v18.2024-60>**NONINVASIVE PROTEOMIC BIOMARKER IN DISORDERS OF THE
NONALCOHOLIC FATTY LIVER****BARİ MD N.^{1*}, OSMAN E.H.A.², ALFAKI M.A.¹, ANSARI MD R.¹**¹. Department of Basic Medical Sciences, College of Medicine, Prince Sattam bin Abdulaziz University, Al-Kharj, Saudi Arabia.². College of Nursing and Health Sciences Department of Diagnostic Radiology in Jazan University Saudi Arabia.

Received 21.02.2023 Accepted for printing 04.08.2024

ABSTRACT

Fatty liver disease that is not alcoholic, often known as non-alcoholic fatty liver disease, is a common and progressive liver ailment that is defined by an abnormal buildup of fat in the liver when significant alcohol use is avoided.

Nonalcoholic fatty liver disease is a frequent and progressive liver disorder. A variety of conditions are referred to as nonalcoholic fatty liver disease, which might include nonalcoholic steatohepatitis and simple steatosis. which can eventually lead to cirrhosis and hepatocellular cancer. Among nonalcoholic fatty liver disease, simple steatosis is the most prevalent kind. Even though it is invasive and has various drawbacks, liver biopsy is still considered the gold standard for diagnosing and staging nonalcoholic fatty liver disease at the present time. As a result, there is an immediate need for noninvasive biomarkers that are capable of providing an accurate diagnosis, staging, and monitoring of the development of illness.

In recent years, proteomic methods have emerged as potentially useful tools for the identification and validation of noninvasive biomarkers in nonalcoholic fatty liver disease. This development has place over the course of many years.

The objective of this research study is to provide an overview of the existing situation of noninvasive proteomic biomarkers in nonalcoholic fatty liver disease as well as their possible implications in clinical practice.

KEYWORDS: nonalcoholic fatty liver disease (NAFLD), proteomic biomarkers, noninvasive diagnosis, liver disease, metabolic syndrome, biomarker discovery, mass spectrometry, proteomics, liver biopsy, disease progression.

INTRODUCTION

The condition known as nonalcoholic fatty liver disease (NAFLD) has become a significant public health concern issue, since it affects a sizeable percentage of people all over the globe. It is distinguished by the buildup of fat in the liver of people who don't drink a considerable quantity of alcohol, which is the defining characteristic of the condition. A range of liver illnesses are referred to as NAFLD that range from simple steatosis (fatty

liver) to non-alcoholic steatohepatitis (NASH), which is characterized by inflammation and damage to the hepatocellular tissue of the liver. An elevated risk of severe fibrosis, cirrhosis, and perhaps hepatocellular carcinoma (HCC) exists in patients with NASH [Ahn S et al., 2010].

The growing worldwide epidemics of obesity, insulin resistance, and metabolic syndrome are directly connected to the incidence of fatty liver dis-

CITE THIS ARTICLE AS:

Bari Md N., Osman E.H.A., Alfaki M.A., Ansari Md R. (2024). Noninvasive proteomic biomarker in disorders of the nonalcoholic fatty liver: A systematic review, The New Armenian Medical Journal, vol.18(2), 60-67; <https://doi.org/10.56936/18290825-3.v18.2024-60>

ADDRESS FOR CORRESPONDENCE:

Nadeem Bari, MD
Department of Basic Medical Sciences College of Medicine, Prince Sattam bin Abdulaziz University
Al-Kharj 11942, Saudi Arabia
Tel.: +966509280389
E-mail: nadeembari273@gmail.com