



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكرو فيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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MONA MAGHRABY



**ASSESSMENT OF PORTAL VENOUS AND HEPATIC ARTERY
HEMODYNAMIC VARIATION IN NON-ALCOHOLIC FATTY LIVER DISEASE
(NAFLD) EGYPTIANS PATIENTS AND IT'S CORRELATION WITH THE
DISEASE SEVERITY**

Thesis

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**تقييم تباين ديناميكية الدورة الدموية في الوريد البابي والشريان الكبدي في
مرض الكبد الدهني غير الكحولي في المرضى المصريين وارتباط ذلك التباين
بشدة المرض**

رسالة

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مقدمة من

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٢٠٢١



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَقُلْ زِدْنِي عِلْمًا

صدق الله العظيم

سورة البقرة آية (٢٥٥)



A decorative scroll with a yellowish-gold background and red borders, featuring green and yellow floral swirls. The word "Acknowledgement" is written in a bold, red, serif font across the center of the scroll.

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LIST OF ABBREVIATIONS

Abb.	Full term
Alb	: Albumin
ALT	: Alanine aminotransferase
AST	: Aspartate aminotransferase
BMI	: Body mass index
BUN	: Blood urea nitrogen
CAP	: Controlled attenuation parameter
CBC	: Complete blood count
D.Bil	: Direct bilirubin
EDV	: End-diastolic velocity
FBS	: Fasting blood sugar
GGT	: Gamma-glutamyl transferase
HARI	: Hepatic artery resistive index
Hb	: Hemoglobin
HBA1C	: Glucosylated hemoglobin
HDL	: High-density lipoproteins
HS	: Highly significant
INR	: International normalization ration
LDL	: Low-density lipoproteins
MFV	: Mean Flow Velocity
Mhz	: Megahertz
NAFLD	: Non-alcoholic fatty liver disease
NS	: Non-significant
PLT	: Platelet
PSV	: Peak-systolic velocity
S	: Significant
SD	: Standard deviation
SPSS	: Statistical package for Social Science
T.Bil	: Total bilirubin
TE	: Transient elastography
TLC	: Total leucocyte count
US	: Ultrasonography
VLDL	: Very-low-density lipoprotein
Vmax	: Peak maximum velocity

List of Abbreviations

Abb.	Full term
Vmin	: Peak minimum velocity
VPI	: Vein pulsatility index

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INTRODUCTION

Nonalcoholic fatty liver disease (NAFLD) is recently considered the leading cause of chronic liver disease worldwide (**Bellentani, 2017**). It is expected that it will become the commonest cause of end-stage liver disease (i.e., cirrhosis and hepatocellular Carcinoma) in the near future and, therefore, the most common indication for liver transplantation (**Younossi, et al., 2019**).

Non-alcoholic fatty liver disease (NAFLD) is defined as macro vesicular steatosis in more than 5% of hepatocytes, in the absence of a secondary cause such as alcohol or drugs. It includes a spectrum of histological lesions ranging from non-alcoholic fatty liver (NAFL) to non-alcoholic steatohepatitis (NASH), fibrosis and cirrhosis. (**Koenig, 2016**).

Recent studies proved that liver fibrosis is considered the most important pathological feature of NAFLD, because it is associated with the prognosis of the disease. (**Dulai, et al., 2017**).

Liver biopsy is assumed to be the gold standard tool for the assessment of liver fibrosis; Despite being associated with several drawbacks, including its invasiveness, cost, high sampling error and procedure-related morbidity and mortality. (**Janiec, et al., 2015**).