

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

بسم الله الرحمن الرحيم





MONA MAGHRABY



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جامعة عين شمس التوثيق الإلكتروني والميكروفيلم قسم

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MONA MAGHRABY

Study for the Role of Resistin in detecting Insulin Resistance and their impact on response to direct acting antiviral in chronic viral hepatitis C patients

Thesis

Submitted for partial fulfillment of the MD degree in Internal Medicine

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List of abbreviations

AASLD American Association for the Study of Liver Diseases

AFP Alpha-Feto Protein

ART Anti-retroviral therapy

CBP Child bearing period

CDC Centers for Disease Control

CK7 Cytokertain 7

CKD Chronic Kidney Disease

DAAs Direct Acting Antivirals

DAC Daclatasvir

DDIs Drug-drug interactions

EASL European Association for the Study of the Liver

EDHS Egyptian Demographic Health Survey

eGFR Estimated glomerular filtration rate

EHIS Egyptian Health Issues Survey

EIA Enzyme immunoassay

ER Endoplasmic Reticulum

FIB4 Fibrosis 4

HOMA Homeostatic model assessment

IFN Interferon

List of abbreviations (Cont.)

INR International normalized ratio

IR Insulin Resistance

IRS Insulin Receptor Substrate

ISDR Interferon Sensitivity Determining Region

LDs Lipid Droplets

LED Ledipasvir

PCR Polymerase chain reaction

RBV Ribavirin

RCT Randomized control trial

RDTs Rapid diagnostic tests

SD Standard deviation

SIM Simeprevir

SOF Sofosbuvir

SVR Sustained Virological Response

TTT Treatment

TGF. Transforming Growth Factor beta

VIP Vasoactive Intestinal peptide

WHO World Health Organization

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Introduction

Hepatitis C virus infection a leading cause of liver cirrhosis, has a significant global impact, where it infects about 71 million in 2015 with highest prevalence in the Eastern Mediterranean and European regions, According to WHO. In Egypt it is 10% prevalent before the National Campaign done in 2018-2019 (*Global Hepatitis report WHO*, 2017).

Earlier data seem to indicate a direct role of HCV in the development of insulin resistance, and evidence shows that the appearance of insulin resistance in patients with chronic HCV hepatitis can be attributed to the virus by itself rather than advanced hepatic fibrosis. (*Romero et al.*, 2008)

Furthermore data showed that interferon based treatment improves insulin resistance and blood glucose levels in patients who clear HCV. (*Delgado et al., 2010*)

Both experimental and clinical studies, have demonstrated that HCV induces insulin resistance. In HCV-infected patients, the reported prevalence ranges from 30% to 70%, regardless the severity of the hepatic disease, and is genotype-specific. In fact, patients with HCV *genotype 1* and 4 infection showed a higher rate of insulin resistance than that observed for genotypes 2 and 3. Moreover, a close correlation between the *viral load* and insulin resistance was observed, indicating a possible direct link between the two conditions. Insulin resistance has a significant role in the development of type 2 diabetes, hepatic steatosis, and liver fibrosis. (*Adinolfi et al.*, 2011)