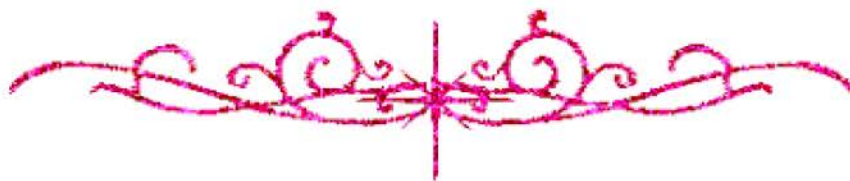


بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

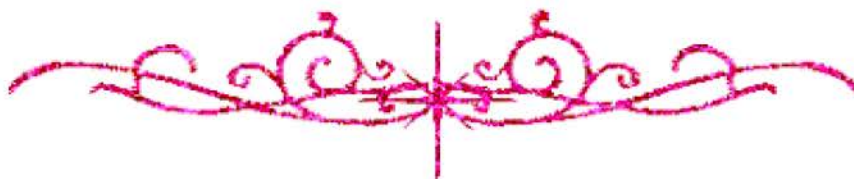
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





Study of Serum Copeptin level as anovel biomarker predicting liver fibrosis in hepatitis c-infected patient

Thesis

*Submitted in Partial Fulfillment of the M.Sc. Degree in
Gastroenterology &Hepatology*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سُبْحَانَكَ لَا عِلْمَ لَنَا
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ
الْعَلِيمُ الْعَظِيمُ

صدق الله العظيم

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List of Abbreviations

Abb.	Full term
<i>ALT</i>	<i>Alanine transaminase</i>
<i>APRI</i>	<i>Aspartate aminotransferase to platelet ratio index</i>
<i>ARFI</i>	<i>Acoustic radiation force impulse</i>
<i>AST</i>	<i>Aspartate transaminase</i>
<i>ATP</i>	<i>Adenosine Triphosphate</i>
<i>AVP</i>	<i>Arginine vasopressin</i>
<i>BMI</i>	<i>Body mass index</i>
<i>CAP</i>	<i>Controlled attenuation parameter</i>
<i>DAMPs</i>	<i>Damage-associated patterns</i>
<i>ECM</i>	<i>Extracellular matrix</i>
<i>EGF</i>	<i>Epidermal growth factor</i>
<i>EGFR</i>	<i>Epidermal growth factor receptor</i>
<i>ELF</i>	<i>Enhanced liver fibrosis</i>
<i>ELISA</i>	<i>Enzyme linked immune sorbent assay</i>
<i>EMT</i>	<i>Epithelial-to-mesenchymal cell transition</i>
<i>ER</i>	<i>Endoplasmic reticulum</i>
<i>GGT</i>	<i>Gamma-glutamyl transferase</i>
<i>HBV</i>	<i>Hepatitis B virus</i>
<i>HCC</i>	<i>Hepato cellular carcinoma</i>
<i>HCV</i>	<i>Hepatitis C virus</i>
<i>HLA</i>	<i>Human leucocytic antigen</i>
<i>HMGB1</i>	<i>High-mobility group box-1</i>
<i>HSCs</i>	<i>Hepatic stellate cells</i>
<i>IFNα</i>	<i>Interferon alfa</i>
<i>IL 1P</i>	<i>Interleukin-1b</i>
<i>IL</i>	<i>Interlukens</i>
<i>IRES</i>	<i>Internal ribosome binding site</i>
<i>IRES</i>	<i>Internal ribosome entry site</i>
<i>IRF3</i>	<i>Interferon regulatory factor 3</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>ISGS</i>	<i>Ifn-stimulated genes</i>
<i>LAP</i>	<i>Latency associated protein</i>
<i>LSM</i>	<i>Liver stiffness measurement</i>
<i>MAPK</i>	<i>Mitogen-activated protein kinase</i>
<i>MASP</i>	<i>Mitochondrial antiviral signaling protein</i>
<i>MMPs</i>	<i>Matrix-metalloproteinases</i>
<i>MR</i>	<i>Magnetic resonance</i>
<i>MRE</i>	<i>Magnetic resonance elastography</i>
<i>MSCs</i>	<i>Mesenchymal stem cells</i>
<i>NAFLD</i>	<i>Non alcoholic fatty liver disease</i>
<i>NFAR</i>	<i>Nuclear factor associated with dsrna</i>
<i>NK</i>	<i>Natural killer</i>
<i>NLR</i>	<i>NOD-like receptor</i>
<i>Nm</i>	<i>Nanometer</i>
<i>NPCs</i>	<i>Non-parenchymal cells</i>
<i>NS</i>	<i>Non-structural protein</i>
<i>OS</i>	<i>Oxidative stress</i>
<i>PAMPs</i>	<i>Pathogen-associated molecular patterns</i>
<i>PCR</i>	<i>Polymerase chain reaction</i>
<i>PDGF</i>	<i>Platelet derived growth factor</i>
<i>PDGFR</i>	<i>Platelet derived growth factor receptor</i>
<i>PD-L1</i>	<i>Programmed cell death 1 ligand 1</i>
<i>PI3K</i>	<i>Phosphatidylinositol 3-kinase</i>
<i>PKR</i>	<i>Protein kinase R</i>
<i>PLCγ</i>	<i>Phospholipase Cγ</i>
<i>RDRP</i>	<i>Rna-dependent rna polymerase</i>
<i>RNA</i>	<i>Ribonucleic acid</i>
<i>RNS</i>	<i>Reactive nitrogen species</i>
<i>ROS</i>	<i>Reactive oxygen species</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>Std. Dev.</i>	<i>Stander deviation</i>
<i>SWE</i>	<i>Shear wave elastography</i>
<i>TE</i>	<i>Transient elastography</i>
<i>TGF-β</i>	<i>Transforming growth factor beta</i>
<i>TGF-B</i>	<i>Transforming growth factor beta</i>
<i>TIMP1</i>	<i>Tissue Inhibitor of Metalloproteinase 1</i>
<i>TIR</i>	<i>Toll/interleukin-1 receptor</i>
<i>TLR</i>	<i>Toll like receptors</i>
<i>TRAIL-R2</i>	<i>Tumor necrosis factor-related apoptosis-inducing ligand receptor 2</i>
<i>TREGS</i>	<i>Regulatory T cells=suppressor T cells</i>
<i>ULN</i>	<i>Upper limit of normal</i>
<i>VS.</i>	<i>Versus</i>
<i>α-SMA</i>	<i>Alpha Smooth Muscle Actin</i>

INTRODUCTION

Cirrhosis is usually the final histological pathway whatever the underlying cause of liver diseases (*Tsochatzis et al., 2014*).

There are many factors that can lead to liver cirrhosis, which include viral hepatitis, alcohol abuse, sclerosing cholangitis, and common inborn errors of metabolism that include Wilson disease, hemochromatosis, and alpha-1 antitrypsin deficiency (*Abd-Elsalam et al., 2018*).

Viral hepatitis accounts for the majority of chronic liver diseases (CLDs) worldwide, CLD can progress to significant liver fibrosis or cirrhosis, resulting in portal complications, such as hypertension, ascites, or hepatocellular carcinoma (HCC) (*Lavanchy et al., 2009*).

Hepatitis C virus genotype 4 is the most common variant of the hepatitis C virus in the Middle East and Africa, particularly Egypt. Egypt has the highest prevalence of HCV worldwide, with 15% of the general population (*Khattab et al., 2011*).

Fibrosis, or scarring of the liver, is a wound-healing response that engages a range of cell types and mediators to encapsulate injury (*Friedman, 2008*).

Accordingly, several non-invasive methods have been developed as alternatives to liver biopsies for evaluating the extent