



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



HANAA ALY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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Correlation between Severity of Liver Disease According to CHILD & MELD Scores and Degree of Cardiac Impairment

Thesis

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Gastroenterology and Hepatology Medicine*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

سَبِّحْ اِنَّكَ لَا تَعْلَمُ لَنَا
اِلَّا مَا عَلَّمْتَنَا اِنَّكَ اَنْتَ
الْعَلِيمُ الْعَظِيمُ

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List of Abbreviations

Abb.	Full term
ALKM-1.....	Anti-liver-kidney microsomal antibodies type 1
ALP.....	Alkaline phosphatase
ALT.....	Alanine aminotransferase
ANA.....	Anti-nuclear antibodies
ANP.....	Atrial natriuretic peptide
APRI.....	AST to Platelet Ratio Index
ASMA.....	Anti-smooth muscle antibodies
AST.....	Aspartate aminotransferase
BNP.....	Brain natriuretic peptide
BNP.....	Brain-type natriuretic peptide
CBC.....	Complete Blood Count
CCC-2020.....	Cirrhotic Cardiomyopathy Consortium in 2020
CCM.....	Cirrhotic Cardiomyopathy
CT.....	Computed tomography
CTP.....	Child-Turcotte-Pugh
ECG.....	Electrocardiographic
EGD.....	Esophagogastroduodenoscopy
ESLD.....	End-stage liver disease
ET-1.....	Endothelin-1
FHF.....	Fulminant hepatic failure
GGT.....	Gamma glutamyl transferase
GLS.....	Global longitudinal strain
GLS.....	Global longitudinal systolic strain
HBV.....	Hepatitis B virus
HCC.....	Hepatocellular carcinoma
HCV.....	Hepatitis C virus
HIV.....	Human immunodeficiency virus
HPS.....	hepatopulmonary syndrome
HRS.....	Hepatorenal syndrome

List of Abbreviations Cont...

Abb.	Full term
HSCs.....	Hepatic stellate cells
HTN.....	Hypertension
HVPG	Hepatic venous pressure gradient
IgG.....	Immunoglobulin G
INR.....	International normalized ratio
KCs	Kupffer cells
LA	Left atrium
LAVI	Left atrial volume index
LBP.....	Lipopolysaccharide binding protein
LFTS.....	Liver function tests
LV	Left ventricular
LVDD.....	Left Ventricular Diastolic Dysfunction
LVEF	Left ventricular ejection fraction
MELD	Model for end-stage liver disease
MR	Magnetic resonance
MRI.....	Magnetic Resonance Imaging
NASH	Nonalcoholic steatohepatitis
NO	Nitric oxides
PRA.....	Plasma renin activity
PT	Prothrombin time
RAAS	Renin-angiotensin-aldosterone system
SECs	Sinusoidal endothelial cells
STE.....	Speckle Tracking Echocardiography
TDI.....	Tissue Doppler Imaging
TNF- α	Tumor necrosis factor alpha
TTE.....	Transthoracic echocardiogram
WCG	World Congress of Gastroenterology

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INTRODUCTION

Cirrhotic Cardiomyopathy (CCM) is a chronic cardiac dysfunction associated with liver cirrhosis without previous heart disease irrespective of the etiology of the cirrhosis (*Toma et al., 2020*).

CCM is first defined in 2005 during the World Congress of Gastroenterology. Its criteria consisted of echocardiographic parameters to identify subclinical cardiac dysfunction in the absence of overt structural abnormalities. Significant advancements including the integration of myocardial deformities imaging into routine clinical practice to identify subclinical cardiovascular dysfunction. Therefore, new criteria based on contemporary cardiovascular imaging parameters are needed (*Izzy et al., 2020*).

In 1953, CCM was described in patients with alcoholic cirrhosis in absence of concomitant cardiac disease as a hyperdynamic circulation with high cardiac output and peripheral vessels vasodilatation (*Hammami et al., 2017*).

Liver Cirrhosis is a multi-systemic disorder characterized by hyperdynamic circulation which can progress to multiple organ dysfunctions. Recent studies have demonstrated autonomic dysfunction and CCM including diastolic dysfunction, systolic dysfunction with electrophysiological abnormalities in patients with cirrhosis (*Baysal et al., 2020*).