بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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Pattern of Liver Injury in COVID-19 Patients

Thesis

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In Internal Medicine

By

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Wael Wadea Fahmey

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List of Abbreviations

Abb.	Full term
2019-nCoV	2019 New Corona Virus
AAT	Alpha-1-Antitrypsin Deficiency
AAT	α 1 -Antitrypsin
ACE2	Angiotensin-Converting Enzyme 2
ACLF	Acute-on-Chronic Liver Failure
ALP	Alkaline Phosphatase
ALT	Alanine Transaminase
ALT	Alanine Aminotransferase
ARDS	Acute Respiratory Distress Syndrome
AST	Aspartate Aminotransferase
CMV	Cytomegalovirus
CoV	Corona Virus
COVID-19	Corona Virus Disease 2019
CRP	C-Reactive Protein
CRS	Cytokine Release Syndrome
CSF	Colony-Stimulating Factor
CT	Computed Tomography
CYP 3A4	Cytochrome P450
DILI	Drug Induced Liver Injury
DILI	Drug-Induced Liver Damage
EUA	Emergency Use Authorization
FNH	Focal Nodular Hyperplasia
FXR	Farnesoid X Receptor
GGT	Gamma Glutamyl Transferase
GM	Granulocyte-Macrophage
HS	Highly Significant

List of Abbreviations (Continued)

Abb.	Full term
ICU	Intensive Care Unit
IP-10	Interferon-γ Inducible Protein 10
LAMP	Loop-Mediated Isothermal Amplification
LDH	Lactate Dehydrogenase
MCP-1	Monocyte Chemoattractant Protein 1
MERS	Middle East Respiratory Syndrome
MIP-1α	Macrophage Inflammatory Protein 1-α
NASH	Non-Alcoholic Steatohepatitis-Related Liver Fibrosis
NS	Non Significant
PBC	Primary Biliary Cirrhosis
PCR	Polymerase Chain Reaction
P-gp	P-glycoprotein
PSC	Primary Sclerosing Cholangitis
RAS	renin-angiotensin system
RR	Respiration Rate
rRT	Real-Time Reverse Transcription
RT	Reverse Transcription
S	Significant
SARS	Severe Acute Respiratory Syndrome
SARS-CoV-2	Severe Acute Respiratory Syndrome Corona Virus 2
TBIL	Total Bilirubin
TMA	Transcription-Mediated Amplification
TNF-α	Tumour Necrosis Factor-α
ULN	Upper Limit Unit of Normal
WHO	World Health Organization

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INTRODUCTION

Corona viruses are a family of viruses that are known to cause both respiratory and intestinal diseases in Various animal species and humans ***(Dong et al., 2019).*** These viruses tend to target the upper respiratory tract, causing Anywhere from moderate to severe illnesses, such as the cold or in more extreme cases, pneumonia. To date, 7 human corona viruses have been identified, including the 3 epidemic viruses of severe acute respiratory syndrome (SARS)-CoV, middle east respiratory syndrome (MERS)-CoV and the newest, severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) ***(Niu et al., 2016).***

In December of 2019, a series of pneumonia cases of unknown origin began to spread in the central city of Wuhan, China. Now identified as SARS-CoV-2, the virus had gone on to infect more than 300,000 people Worldwide by March 2020 ***(Jia et al., 2019).***

The corona virus disease (COVID-19) has been labelled a pandemic by the World Health Organization (WHO) having led to thousands of deaths and hospitalizations worldwide.

While most COVID-19 cases have been identified as mild, more extreme diagnoses have led to respiratory failure, septic shock, and/or multiple organ dysfunction ***(Wu and McGoogan, 2020).***