



FATIGUE AND DEPRESSION IN CHRONIC HCV INFECTED PATIENTS TREATED WITH DAAS

Thesis

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By

Riham Magdy Mahmoud
(M.B.,B.Ch.)

Supervised by

Prof. Dr. Amal Tohamy Abd Al Moaaz

Professor of Tropical Medicine Department
Faculty of Medicine - Ain Shams University

Dr. Amira Mahmoud Al Balakosy

Lecturer of Tropical Medicine Department
Faculty of Medicine - Ain shams University

Dr. Youmna Ahmed Al Hawary

Lecturer of Psychiatry and Neurology Department
Faculty of Medicine - Ain shams University

Faculty of Medicine
Ain Shams University
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List of Abbreviations

5-HT	Serotonin
ALT	Alanine Aminotransferase
ANA	Antinuclear antibodies
ASMA	Anti-smooth muscle antibodies
BDI	The Beck depression inventory scale
BDNF	Neuropeptides like Brain-derived neurotrophic factor
BH4	tetrahydrobiopterin
BMECs	Brain micro vascular endothelial cells
CDC	The Centers for Disease Control and Prevention
CFS	Chronic fatigue syndrome
CHE	Covert hepatic encephalopathy
Cho	Choline
CLDN1	Tight-junction proteins claudin-1
Cr	Creatine
CRH	Corticotropin-releasing hormone
CYPA	Cyclophilin A
DAAs	Directly acting antivirals
DASS-21	Depression Anxiety Stress Scale
DDIs	Drug-drug interaction
DHS	Demographic Health Survey
DSM	Diagnostic and statistical manual of mental disorders
EMOH	Egyptian Ministry of Health
ER	Endoplasmic reticulum
HCC	Hepatocellular carcinoma
HCV	Hepatitis C virus

List of Abbreviations

HIV	Human immune deficiency virus
HPA	Hypothalamic pituitary adrenal axis
HRQL	Health related quality of life
HSCs	Hepatic stellate cells
HVPG	Hepatic venous pressure gradient
IDO	Indoleamine 2,3-dioxygenase
IL28B	Interleukin-28B
IL-6	Interleukin – 6
IRES	Internal ribosome entry site
KA	Kynurenic acid
KYN	Kynurenine
LDL	The Low-Density Lipoprotein
LDV/SOF	Ledipasvir/Sofosbuvir
LVP	Lipoviroparticle
MDD	Major depressive disorder
MI	Myoinositol
MRS	Magnetic resonance spectroscopy
NAA	N-acetyl aspartate
NASH	Non -alcoholic steato hepatitis
NK	Natural killer cells
NMDAR	N-Methyl-D-aspartate receptor
NNPI	Non-nucleoside polymerase inhibitors
NOSs	Nitric oxide synthases
NPI	Nucleoside polymerase inhibitors
OCN	Occludin
OHE	Overt hepatic encephalopathy
OXs	Systemic oxidative stress

List of Abbreviations

PAH	Phenylalanine hydroxylase
PBMCs	Peripheral blood mononuclear cells
PEG	Polyethylene glycol
PEGIFN	Pegylated interferon
PET studies	Positron emission tomography
PHEN	Phenylalanine
PR therapy	Pegylated IFN/Ribavirin therapy
PROs	Patient-reported outcomes
PWI	Perfusion weighted imaging
QUIN	Quinolinic acid
RBV	Ribavirin
RdRp	RNA dependant RNA polymerase
ROS	Reactive oxygen species
SNPs	Single nucleotide polymorphisms
SRB1	Scavenger receptor B1
SVR	Sustained virological response
TNF-α	Tumor necrosis factor α
TRP	Tryptophan
VB	Variceal bleeding
WP	Work productivity

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Abstract:

Introduction and aim:

Fatigue is probably the most common extra hepatic manifestation of HCV infection as about 60% report disabling chronic fatigue also depression has been reported in about one third of HCV-infected patients. The study aimed to evaluate fatigue and depression in hepatitis C virus (HCV) patients before and after treatment (4 weeks and 3 months) by Direct Acting Antiviral Drugs (DAAs).

Patients and methods:

The study included a total of 150 Patients with chronic HCV receiving direct acting antiviral drugs (DAAs). All patients were assessed for presence of fatigue by chalde fatigue scale and for presence of depression by beck's depression inventory scale. The assessment was done before treatment and after the end of treatment by 4 weeks and by 3 months. Also full history taking, thorough clinical examination, laboratory investigations and pelvi-abdominal ultrasound were done before treatment and after the end of treatment by 4 weeks and by 3 months.

Results and conclusion:

Before treatment 120 (80%) of our patients had fatigue and 78 (52%) of our patients had depression, One month after the end of treatment fatigued patients decreased to be 49 (32.7%) and the number of depressed patients decreased to 33 (22%), and at sustained virological response (3 months after the end of treatment); the number further decreased to be only 21 (14%) of our patients still have fatigue and number of depressed patients further decreased to be 20 (13.4%) of our patients still have depression. fatigue scores increase with older age and presence of diabetes and anemia, depression prevalence and severity are higher in females and anemic patients. Higher Fib4 score and ALT level are associated with higher fatigue and depression scores.

Key words:

Chronic HCV, fatigue, depression, chalde fatigue scale, beck's depression inventory scale, direct acting antiviral drugs, sustained virological response.