
Neuropsychiatric complications of chronic hepatitis C infection in Egyptian patients

Thesis

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بسم الله الرحمن الرحيم

وان ليس للانسان الا ما سعى .. وان سعيه "

سوف يرى .. ثم يجزاه الجزاء الاوفى "

سورة النجم الآيات 39-41

To my devoted mother & father

To my dear wife

To my darling kid

To my large family

Abstract

The hepatitis C virus (HCV) epidemic in Egypt is unique in the world and well documented in the international medical scientific literature. We described a wide range of central and peripheral nervous system disorders linked to HCV infection by clinical, laboratory, neurophysiological and imaging. Since there is HCV epidemic in Egypt that is unique in the world and well documented in the international medical scientific literature, hence HCV-related neurological complications should be included in the differential diagnosis of cryptogenic neurological disorders in Egyptian patients.

Keywords: Neuropsychiatric, chronic hepatitis C infection, Egyptians, cryoglobulinemia, cognitive impairment, neuropathy

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الملخص العربي

Abbreviations

aCL = anticardiolipin antibodies
ANA = anti-nuclear antibodies
APAAP = alkaline phosphatase anti-alkaline phosphatase
aPL= antiphospholipid antibodies
APS = antiphospholipid syndrome
AUC = area under curve
BBB = blood-brain barrier
BCL = B cell non-Hodgkin's lymphoma
B-CLL = B cell chronic lymphocytic leukaemia/small lymphocytic lymphoma
BLyS = B-lymphocyte stimulator
 β_2 GPI = β_2 glycoprotein I
CAMDEX = Cambridge Examination for Mental Disorders of the Elderly.
cDNA = complementary deoxyribonucleic acid
CG = cryoglobulinaemia
CHC = chronic hepatitis C
CIFN = consensus interferon
CMV = cytomegalovirus
CNS = central nervous system
CSF = cerebrospinal fluid
CSPT = cortico-striatal-pallidal-thalamic circuit
CTL = cytotoxic T lymphocytes
EIA = enzyme immunoassay
ELISA = enzyme linked immunosorbent assay
EVR = early virological response
HAI = histopathological activity index
Hb= hemoglobin
HBV = hepatitis B virus
HCV = hepatitis C virus
HCV-MC = HCV related mixed cryoglobulinaemia
5-HIAA = 5-Hydroxy Indol Acetic Acid
HIV = human immunodeficiency virus
HLA = human leukocyte antigen
 ^1H MRS = proton magnetic resonance spectroscopy
5-HT = 5-hydroxytryptamine (serotonin)
HVR = hypervariable region
IC = immunocytoma
IFN- α = interferon-alpha
Ig = immunoglobulin
IL = interleukin
IMPDH = inosine monophosphate dehydrogenase
IRES = internal ribosomal entry site

ISDR = interferon-sensitivity–determining region
IVDU = intravenous drug user
LA = lupus anticoagulant
LAC = low antigen content
LCR = locus ceruleus reticulata
LKM antibody = liver, kidney and muscle antibody
MC = mixed cryoglobulinaemia
MHE = minimal hepatic encephalopathy
MLDUS = monotypic lymphoproliferative disorder of undetermined significance
MMPs = matrix metalloproteinases
NHTMRI = National Hepatology and Tropical Medicine Research Institute
NS= non-structural proteins
nt =Nucleotide
NTPase = nucleotide triphosphatase
ORF = open reading frame
PAT = parenteral antischistosomal therapy
PBMCs = peripheral blood mononuclear cells
PCR = polymerase chain reaction
PEG-IFN = pegylated interferon
PM = polymyositis
PN = peripheral neuropathy
PPI = prepulse inhibition
RdRp = RNA-dependent RNA polymerases
RF= rheumatoid factor
RNA= ribonucleic acid
SLE = systemic lupus erythematosus
SSRIs = selective serotonin reuptake inhibitors
SVR = sustained virological response
TIMPs = tissue inhibitors of metalloproteinases
TNF- α = tumor necrosis factor alpha
TW4 = four weeks of therapy
TW12 = 12 weeks of therapy
UTRs = untranslated regions
Vs = versus
WBC= white blood cell count
WMS= Wechsler memory scale-revised

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