

Study of serum level of interleukin 8 in patients with chronic liver disease due to hepatitis C with and without hepatocellular carcinoma

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Abstract

Interleukin-8 (IL8) is a pro-inflammatory cytokine involved in the cellular response to inflammation, being a powerful chemoattractant for neutrophils. IL-8 is produced by a wide variety of cell types, including monocytes, neutrophils, fibroblasts, and endothelial cells. It serves as a chemical signal that attracts, and therefore is also known as neutrophil chemotactic factor. It is also considered as tumor angiogenesis controlling factor.

Hepatitis C virus is one of the major etiological agents of chronic viral hepatitis. Often progress to chronic hepatitis, cirrhosis and hepatocellular carcinoma

HCC is the malignant transformation of hepatocytes and is a common complication of chronic hepatitis caused mainly by HCV. The aim of study was to study the level of IL-8 in patients of HCV with and without HCC as this may have diagnostic, prognostic, or therapeutic implications..

Key words:

Interleukin 8, Cytokine, Hepatocellular carcinoma,
Hepatitis C virus infection

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List of Abbreviations

A cDNA	A full-length Complementary DNA
Adv-AFP	Advanced-Alpha Feto Protein
AFP	Alpha Feto Protein
A (IV) NA231	Influenza A Virus that is endogenously processed from the neuraminidase
ALT	Alanine Transaminase
APCs	Antigen-Presenting Cells
ARDS	Acute Respiratory Distress Syndrome
BAL	Broncho Alveolar Lavage
BALB/c	Mouse Model
Bcl-2	HumanProto-Oncogene
B-CLL	B-lymphocytes
Bcl-xl	Anti-Apoptotic Member Of The Bcl-2 Family
BCG	Bacillus Calmette-Guerin
CAH	Chronic Active Hepatitis
CB-17/SCID	Mouse model
CCR	Chemokine Receptor

CD	Cluster Of Differentiation
CDK4	Cyclin-Dependent Kinase 4
CH	Chronic Hepatitis
CLD	Chronic Liver Disease
CR	Complete Remission
CSF	Cerebro Spinal Fluid
CSF1	Colony Stimulating Factor1
CTL	Cytotoxic T Lymphocytes
CTLA-4	Cytotoxic T-Lymphocyte Antigen 4
cyclin D	Integrin-Dependent Signal Transduction Regulating
DAG	Diacylglycerol
DARC	Duffy Antigen Receptors For Chemokines
DNA	Deoxy Nucleic Acid
DCs	Dendritic Cells
DsRNA	Double stranded Ribo Nucleic Acid
DTH	Delayed Type Hypersensitivity

E1	Envelope1
EBV	Ebestien Bar Virus
ELISA	Enzyme Linked Immuno Sorbent Assay
ELISPOT	Enzyme-Linked Immunosorbent Spot-Forming Cell
E-L-R-CXC	Glutamic acid- Leucine-Arginine-Cysteine-X-Cysteine
ENA-78	Epithelial Cell-Derived Neutrophil Attractant
ERK	Extracellular Signal Regulated Kinase
ETR	End of Treatment Response
FasL	Factor and Fas Ligand
FU	Flurouracil
Fmlp	Formyl-Methionyl-Leucyl-Phenylalanin
FOXP3	forkheadbox P3 gene
$\gamma\delta$ T	gamma delta T cells
GDP	Guanosine Diphosphate
GM-CSF	Granulocyte-Macrophage Colony Stimulating Factor
GN	Glomerulonephritis
GPCR	G protein-coupled receptors

GRO-alpha	Growth-Related Oncogene-Alpha
GTP	Guanosine Triphosphate
HbsAg	Hepatitis B Surface Antigen
HBV	Hepatitis B Virus
HCC	Hepatocellular Carcinoma
HCV	Hepatitis C Virus
HCV E2	Hepatitis C virus Envelope 2
Hep	Human Hepatoma Cell Lines
HHV1 UL5529	Human Herpes Virus-1 Infection
HIV	Human Immunodeficiency Virus
HLA-E	Human Leucocyte Antigen-E
HMC	Human Mast Cell Line
HSC	Human Astrocyte Cell
Huh7	Human Hepatoma Cell line
HVR-1	Hypervariable Region-1
IC41	Hepatitis C vaccine
ICAM-1	Intra Cellular Adhesion Molecule-1

IFN-δ	Interferon-Gamma
IHC	Immunohistochemistry
IL	Interleukin
IRF-3	Interferon Regulatory Transcription Factor -3
Ip₂	phosphatidylinositol-4,5-Diphosphate
IP₃	phosphatidylinositol-1,4,5-Triphosphate
IP-10	Inducible Protein-10
IPS-1	Interferon-beta Promoter Stimulator 1
ISRE	Interferon-Stimulated Response Element
KIRs	Killer Immunoglobulin-Like Receptors
KLH	Keyhole limpet hemocyanin_
LAK	Lymphokine-Activated Killer
LC	Liver Cirrhosis
LCMV	lymphocytic Choriomeningitis Virus
LTB₄	leuktriene B₄
MAGE-1	Melanoma Antigen 1

MAPK	Mitogen-Activated Protein Kinase
Mcl-1	Myeloid Cell Leukemia Sequence- 1
MCP	Monocyte Chemoattractant Protein
M-CSF	Macrophage-Colony Stimulating Factor
MIC	Monokine Induced By Interferon-Gamma
MIC	MHC Class I Chain-Related Proteins
MIF	Migration Inhibitory Factor
MGSA	.Melanoma Growth Stimulatory Activity
MHC	Major histocompatibility complex
MHCAFP	Major Histocompatibility Complex Alpha-fetoprotein
MMPs	Matrix Metalloproteinase
MR	Minor Remission
mRNA	Messenger Ribonucleic Acid
MVA	Modified Vaccinia Virus-Ankara
MVC	Microvessel Count
Myc	Myelocytomatosis Viral Oncogene Homolog
NAP-2	Neutrophil Activating Peptide-2

NC	No Change
NCPD	No Change Progressive Disease
NFAT	Nuclear Factor Of Activated T-Cells
NF-Kb	Nuclear Factor-Kappa Beta
NFs	Nuclear Factors
NH2	Amine Group
NK	Natural killer Cells
NKT	Natural killer T Cells
NO	Nitric Oxide
NS	Non Structural
NY-ESO-1	Cancer-Testis Antigen
OK432	noncytotoxic antineoplastic agent used in treatment of lymphangioma
p53	Tumor Protein 53
PBLs	Peripheral Blood Lymphocytes
PBMC	Peripheral Blood Mononuclear Cell
PD	Progressive Diseases

PD-1	Programmed Death-1
PEG-IFN-δ	Pegylated Interferon-Gamm
PF4	Platelet Factor 4
PIP₂	Phosphatidylinositol Diphosphate Membrane Substrate
PKC	protein kinase C
PKR	Protein Kinase Receptor
PLC	Phospholipase C
PMN	Polymorphonuclear Leukocyte
PR	Partial Remission
PreS1	Envelope Proteins Of The Hepatitis B Virus
PTK	Protein Ttyrosine Kinase
pTNM	Pathological Tumor-Lymph Node-Metastasis
qRT PCR	Quantitative Real-Time Polymerase Chain Reaction
RA	Rheumatoid Arthritis
Rae 1	Retinoic Acid Early Inducible Protein 1
RAG2	Recombination Activating Gene 2
RANTES	Regulated upon Activation, Normal T cell Expressed and Secreted

Rb2	Pro-Mitogenic Protein
RIG-I	Retinoic Acid Inducible Gene I
RGS	Regulators Of G-protein Signaling
RNA	Ribonucleic Acid
RNAi	Ribonucleic Acid Interference
RNAse	Ribonuclease
SDF-1	Stromal Cell-Derived-Factor-1
SKHep1	Human Hepatoma Cell Line
SNPs	Single Nucleotide Polymorphisms
SSX	Synovial Sarcoma On X Chromosome
ST	synovial Tissue
STAT-1	Signal Transducer And Activator Of Infection
SVR	Sustained Virological Response
TAA's	Tumor-Associated Antigens
TACE	Transarterial Chemoembolization
TAM	Tumor-Associated Macrophages
TAP	Transporter Associated With Antigen Presentation

TCR	T-Cell Receptor
TGF-β	Transforming Growth Factor-β
Th1/Th2	T Helper Cells1/ T Helper Cells 2
TILs	Tumor-Infiltrating Lymphocytes
TLR	Toll-Like Receptor
TNF-α	Tumor Necrosis Factor-Alpha
TNFR1	Tumor Necrosis Factor Receptor I
TRAIL	Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand
Treg	Regulatory T Cells
ULBP	UL16 Binding Protein
VEGF.	Vascular Endothelial Growth Factor

