Assessment of von willebrand factor in hepatitis c patients as biomarker for liver fibrosis and predictor of HCC

Thesis

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Acknowledgement

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List of Abbreviations

2D SWE	2D Real time Shear wave elastography
A1	Apolipoprotein
A2M	Alpha 2 macroglobulin
AFP	Alpha-Feto Protein
AJCC	American Joint Committee on Cancer
ALD	Alcoholic Liver disease
ALP	Alkaline phosphatase
ALT	Alanine Aminotransferase
ARFI	Acoustic radiation force impulse
ARG 1	Arginase 1
ASC	Apoptosis associated speck like protein
ASH	Alcoholic steatohepatitis
AST	Aspartate Aminotransferase
ATP	Adenosine triphosphate
AUROC	Area under receiver operating curve
BCLC	Barcelona clinic liver cancer
C (DC)	Classical dendritic cells
C TGF	Connective tissue growth factor
CARD	caspase recruitment domain
CCL2	Chemokine (c-c motif) ligand 2
CCR 2	Chemokine receptor 2
CD	Cluster of differentiation
CEUS	Contrast enhanced ultrasonography
CHC	Chronic hepatitis c virus infection
CLD	Chronic liver disease
CLIP	Cancer of the Liver Italian Program

List of Abbreviations

CT	Contrast enhanced computed tomography
CXCL 10	Chemokine (Interferon Gamma inducible protein)
DAMP	damage associated molecular pattern
DC	Dendritic cells
DWI	Diffusion weighted imaging
EASL	European association for the study of the liver
ECM	Extracellular matrix
EFSUMB	European Federation of societies for ultrasound in medicine and biology
ER	endoplasmic reticulum
EV	Extracellular vesicles
FCI	Fibrosis cirrhosis index
FI	Fibrosis Index
FOV	Field of view
FXR	farnesoid X receptors
Gd-EOB-DTPA	Gadolinium ethoxybenzyl diethylenetriamine penta acetic acid
Gp	Glycoprotein
HA	Hyaluronan
HBV	Hepatitis B virus
HCC	Hepatocellular carcinoma
HCV	Hepatitis C virus
Hi-RTE	Hi Real elastography
HMGB	High mobility group protein
HSC	Hepatic stellate cells
HVAT	Hepatic veins arrival time

List of Abbreviations

ICAM 1	Intracellular adhesion molecule 1
ICG	Indocyanine green
IL-1 A	Interleukin 1A
INF Gamma	Interferon Gamma
IP-10	Interferon gamma induced protein
ITT	Intrahepatic transit time
IV	Intravenous
KC	Keratinocyte Chemoattractant (neutrophil chemokines)
KPa	kilo pascal
LB	Liver Biopsy
LPC	Lysophophatidylcholine
LPS	Lipopolysaccharide
LS	Liver stiffness
LSECs	Liver sinusoidal endothelial cells
MAIT	Mucosal associated invariant T cells
MCAD	Medium chain acyl coA dehydrogenase
MCP 1	Monocyte chemoattractant protein 1
MDA	Malondialdhyde
MEGX	Monoethylglyinexylidide
MFAP 4	Microfibril associated protein 4
MIP-1 Alpha	Macrophage inflammatory protein one alpha
MIP-1 Beta	Macrophage inflammatory protein one beta
MIP-2	Macrophage inflammatory protein 2
MMP 1	Matrix metalloproteinase

List of Abbreviations

MMP 9	Matrix metallopeptidase
MR elastography	Magnetic resonance elastography
MR spectroscopy	Magnetic resonance spectroscopy
MRI	Magnetic resonance imaging
NAFLD	Non Alcoholic Fatty liver disease
NASH	Non alcoholic steatohepatitis
NF–kb	Nuclear Factor Kappa –light – chain enhancer of activated b cells .
NKT	Natural killer cells
NLR	nod like receptor
NO	Nitric Oxide
NOS	Nitric oxide Synthase
NOTCH 1	human gene encoding a single pass transmembrane receptor
NOX	Mixture of oxides of nitrogen : nitric oxide – nitrogen dioxide – nitrous oxide
NPV	Negative predictive value
P (DC)	Plasmacytoid dendritic cells
PC	Phosphatidylcholine
PCR	Polymerase chain reaction
PDE	Phosphodiester
PDGF	Platelet derived growth factor
PE	Phosphatidyl ethanolamine
PIIINP	Procollagen type 3 amino terminal peptide
PME	Phosphomonoester
PPAR	peroxisome proliferator – activated receptor

List of Abbreviations

PRR	Pattern recognition receptors
qHSCs	Quiescent hepatic stellate cells
RANTES	Regulated on activation, normal T cell expressed and secreted
RIP 3	receptor interacting proteins
ROI	Region of interest
ROS	Reactive oxygen species
SAM	S adenosyl methionine (methyl donar)
SAP	Serum amyloid protein
SE	Strain elastography
SOD	Superoxide dismutase
SPIO	Super para magnetic iron oxide
SSWE	Super-sonic shear wave elastography
STAT 3	Signal transducer and activator of transcription 3
SWE	Shear wave elastography
TACE	Transcatheter arterial chemoembolization
TACE-DEB	Chemoembolization with Drug-Eluting Beads
TAE	Transarterial embolization
TARE	Transarterial radioembolization
TE	Transient elastography
TGF beta	Transforming growth factor beta
TGF-β	Transforming Growth Factor beta
TIMP 1	Tissue inhibitor of metalloproteinase
TLR	toll like receptor
TLR4	Toll like receptor 4

List of Abbreviations

TNF alpha	Tumor necrosis factor Alpha
TNM	Tumor-Node-Metastasis Staging System
TRAIL	TNF – related apoptosis inducing ligand
Tregs	Regulatory T cells
UCSF	University of California, San Francisco criteria
UICC	Union International Contre le Cancer.
US	Ultrasound
VCAM 1	Vascular cell adhesion molecule 1
VDBP	Vitamin D binding protein
VLDL	very low density lipoprotein
VWF	Von willebrand factor
WHO	World health organization

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