

***Detection Of HCV Antibodies In Oral Fluid
In Chronic Hepatitis C Virus Patients***

Thesis
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For my father ...

*One of the generation who suffered
from HCV*

And

For my son ...

*One of the generation we try to prevent
HCV spreading to them.*

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*Thanks first and last to **Allah** the most merciful as we owe him for his great care, support and guidance in every step in our life.*

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List of abbreviations

AFP	Alpha feto protein.
AGA	Antigliadin antibodies.
ALT	Alanine aminotransferase.
AMA	Antimitochondrial antibodies.
ANA	Antinuclear antibodies.
ANOVA	Analysis of variance.
Anti-CCP	Anti-cyclic citrullinated peptide antibodies.
Anti-LKM-1	Anti-liver, kidney, and microsomal.
Anti-SSA/Ro Anti-SSB/La	SSA and SSB stand for <i>Sicca syndrome</i> A and B, while Ro and La refer to the initials of the first patients.
AST	Aspartate transaminase.
b-DNA	Branched DNA.
BUN	Blood urea nitrogen.
CA 125	Carcinoembryonic antigen 125.
CA 15.3	Carbohydrate antigen 15.3.
CAM	Complementary and Alternative Medicine.
CBC	Complete blood count.
CC14	Carbon tetrachloride, a narcotic and toxic solvent classified as 'Class-B2' carcinogen by the US Environmental Protection Agency.
CD	Cluster of Differentiation.
CDC	Centers for Disease Control and Prevention, USA.
c-DNA	Complementary DNA.
c-erbB-2	Epidermal growth factor receptor 2, The gene that controls cell growth by making the human epidermal growth factor receptor number 2. Also called Her-2.
CF	Cystic fibrosis.
CFTR	Cystic fibrosis transmembrane conductance regulator.
CH	Chronic hepatitis.
CI	Confidence interval.
CIA	Chemiluminescence immunoassay.

CK2	Casein Kinase II.
CTL	Cytotoxic T-lymphocytes.
DCs	Dendritic cells.
DDB	Dimethyl Dicarboxylate Biphenyl.
DM	Diabetes Mellitus.
DNA	Deoxyribonucleic acid.
Ds	Double-stranded.
E1&E2	Envelope proteins.
EASL	European Association for the Study of the Liver.
EGF	Epidermal growth factor.
EIA	Enzyme immunoassay.
ELISA	Enzyme Linked ImmunoSorbant Assay.
EMC	Essential Mixed cryoglobulinemia.
ENT	Ear, Nose and Throat.
ESR	Erythrocyte sedimentation rate.
ETR	End of treatment response.
EVR	Early virologic response.
FDA	The U.S. Food and Drug Administration.
GAGs	Glycosaminoglycans.
GCF	Gingival crevicular fluid.
GCSF	Granulocyte colony-stimulating factor.
gm/dL	Gram per deciliter.
HAART	Highly active antiretroviral therapy.
HAI	Histology Activity Index.
HAV	Hepatitis A virus.
HBeAg	Hepatitis B e antigen.
HBsAg	Hepatitis B surface antigen.
HBV	hepatitis B virus.
HCC	Hepatocellular carcinoma.
HCV	Hepatitis C Virus.
HCWs	Health Care Workers.
HEENT	Head, eyes, ears, nose, and throat.
Hgb	Hemoglobin.
HIV	Human Immunodeficiency Virus.
HLA	Human Leukocytic Antigen.

HS	Highly significant.
HSV-1	Herpes simplex virus type-1.
HTN	Hypertension.
HV01	Hyper-variable region.
IFN	Interferon.
Ig	Immunoglobulin.
IGF-1 and IGF-II	Insulin-like growth factors I, II.
IL	Interleukin.
INR	International Normalized Ratio.
IRES	Internal ribosomal entry site.
ITP	Idiopathic thrombocytopenic purpura.
IU/L	International unit per liter.
IU/ml	International unit per milliliter.
IV	Intravenous.
Kb	Kilobase.
Kd	Kilodalton.
LDLTs	Living-donor liver transplants.
L.L.	Lower limb.
Lp/Ic	Lymphoplasmacytoid/ immunocytoma.
MALT	Mucosa-associated lymphoid tissue.
MC	Mixed cryoglobulinemia.
MEMS	Microelectromechanical systems.
MG	Myasthenia gravis.
mg	Milligrams.
MHC	Major histocompatibility complex.
mmol/L	Millimole per liter.
MMWR	Morbidity Mortality Weekly Report.
MPGN	Membranoproliferative glomerulonephritis.
MQ	Macrophage.
mRNA	Messenger RNA.
µg/kg	Microgram per kilogram.
NAC	N-acetylcysteine.
NAFLD	Non alcoholic fatty liver disease.
NANB	Non A Non B Hepatitis.
NASH	Non alcoholic steatohepatitis.

NAT	Nucleic Acid Amplification Technology.
NHANES	National Health and Nutrition Examination Survey.
NIDCR	National Institute of Dental and Craniofacial Research in USA.
NIH	National Institutes of Health.
NK cell	Natural killer Cell.
NKT cell	Natural killer T cell.
NPV	Negative predictive value.
NS	Non significant.
NS2, NS3, NS4, NS5	Non Structural proteins 2, 3, 4, 5.
NTR	Nontranslated terminal region.
OMT	Oral mucosal transudates.
PBD	Pigeon breeder's disease.
PBMC	Peripheral blood mononuclear cells.
PCP	Phencyclidine.
PCR	Polymerase chain reaction.
PEG-IFNs	Pegylated interferons.
pH	A measure of the acidity or alkalinity.
PKR	Protein kinase R.
PMNs	Polymorphonuclear leukocytes.
PO	Per mouth.
PPV	Positive predictive value.
PT	Prothrombin time.
PTT	Partial thromboplastin time.
rER	Rough endoplasmic reticulum.
RF	Rheumatoid factor.
RFLP	Restriction fragment length polymorphism.
RIBA	Recombinant immunoblot assay.
RNA	Ribonucleic acid.
RT	Reverse transcriptase.
RV	Rotavirus.
S	Significant.
SCC	Squamous cell carcinoma.
SD	Standard deviation.

SIBOG	Small intestinal Bacterial overgrowth.
sIgA	Secretory IgA.
SLE	Systemic lupus erythematosus.
SMA	Smooth muscle antibodies.
SNMC	Stronger Neo-Minophagen C.
SPSS	Statistical Package for Special Science
SQ	Subcutaneous.
SS	Sjögren Syndrome.
ss	Single stranded.
SST	Sho-Saiko-To.
STDs	Sexually transmitted Diseases.
SVR	Sustained virologic response.
TB	Tuberculosis.
TCR	T cell receptor.
TGF- α	Transforming growth factor-alpha.
TGF-β	Transforming growth factor-beta.
Th1	T helper 1.
TIMP-1	Tissue inhibitor of metalloproteinase 1.
t.i.w.	Three times per week.
TLR	Toll-like receptor.
TMA	Transcription-mediated amplification.
TNF	Tumor necrosis factor.
TSH	Thyroid-stimulating hormone.
Tx	Transplantaion.
UDCA	Ursodeoxycholic acid.
ULN	Upper limits of normal.
uro-D	Uroporphyrinogen decarboxylase.
US	Ultrasonography.
USA	United States of America.
UTR	Untranslated region
UV	Ultraviolet.
VHS	Very highly significant.
WBCs	White blood cells.
WHO	World Health Organization.
YKL-40	Human cartilage glycoprotein-39 “Chondrex”
17-OHP	17-hydroxyprogesterone.

Introduction