Ain Shams University Institute of Post-Graduate **Childhood Studies Medical Department**

SOMATOMEDIN-C (INSULIN-LIKE GROWTH FACTOR-II IN EGYPTIAN CHILDREN WITH CHRONIC LIVER DISEASE AND ITS CORRELATION WITH ANTHROPOMETRIC STUDIES

Thesis

Submitted in fulfillment of Ph. D. degree in Medical Childhood Studies

Bv

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List of Abbreviations

• ALB : Albumin

• ALK.PH : Alkaline phosphatase enzyme

• ALKM : Antibody to liver and kidney microsome

• ALT : Alanine aminotransferase enzyme

• AMA : Anti-mitochondrial antibody

• ANA : Anti-nuclear antibody

• Anti-HBc : Antibody to Hepatitis B core antigen

• Anti-HBc IgG : Antibody to Hepatitis B core antigen of

Immunoglobulin G class

• Anti-HBc IgM : Antibody to Hepatitis B core antigen of

Immunoglobulin M class

• Anti-HBe : Antibody to Hepatitis B e antigen

• Anti-HBs : Antibody to Hepatitis B surface antigen

• Anti-HCV : Antibody to Hepatitis C virus

• Anti-HDV : Antibody to Hepatitis D virus

• Anti-HD IgG : Antibody to Hepatitis D virus of

Immunoglobulin G class

• Anti-HD IgM : Antibody to Hepatitis D virus of

Immunoglobulin M class

• ASLA : Anti-soluble liver antibody

• ASMA : Anti-smooth muscle antibody

• AST : Aspartate amino transferase enzyme

• BCAA : Branched chain amino acid

• BUN : Blood urea nitrogen

• CAH : Chronic active hepatitis

List of Abbreviations ii

• CC : Chest circumference

• CH : Chronic hepatitis

• CLD : Chronic liver disease

• CLH : Chronic lobular hepatitis

• CNS : Central nervous system

• CPH : Chronic persistent hepatitis

• DNA : Deoxy ribonucleic acid

• ELISA : Enzyme-linked immunosorbent assay

• ESLD : End stage liver disease

• GH : Growth hormone

• GHD : Growth hormone deficiency

• GHBP : Growth hormone binding protein

• GHRH : Growth hormone releasing hormone

• Glob : Globulin

• GSD : Glycogen storage disease

• HAI : Histological activity index

• HAM : Height-for-age percentage of the median

• HAP : Height-for-age percentile

• HAZ : Height-for-age Z score

• HB : Haemoglobin

• HBV : Hepatitis B virus

• HBc Ag : Hepatitis B core antigen

• HBe Ag : Hepatitis B e antigen

• HBs Ag : Hepatitis B surface antigen

• HBx Ag : Hepatitis B x antigen

• HBV-DNA : Hepatitis B virus Deoxyribonucleic acid

• HC : Head circumference

• HCC : Hepatocellular carcinoma

• HCV : Hepatitis C virus

• HCZ : Head circumference Z score

• HDV : Hepatitis D virus

• hGH : Human growth hormone

• HSM : Hepatosplenomegaly

• Ht : Height

• IFMA : Immunofluorometric assay

• IFN α : Interferon Alpha

• IGFs : Insulin-like growth factors

• IGF-I : Insulin-like growth factor - I

• IGF-II : Insulin-like growth factor - II

• IGFBPs : Insulin-like growth factor binding proteins

• IRMA : Immunoradiometry assay

• KCs : Kupffer cells

• KDa : Kilo dalton

• MSA : Multiplication stimulating activity

• m-RNA : messenger ribonucleic acid

• MUAC : Mid upper arm circumference

• MUACP : Mid upper arm circumference percentile

• NANB : Non-A Non-B hepatitis virus

• NCHS : National Center for Health Statistics

• NSILA : Non suppressive insulin-like activity

• PAS : Periodic acid-schiff stain

• PBC : Primary biliary cirrhosis

• PCM : Protein-calorie malnutrition

• PCR : Polymerase chain reaction

List of Abbreviations iv

• PLAT : Platelets count

• PSC : Primary sclerosing cholangitis

• PT : Prothrombin time

• PTT : Partial thromboplastin time

• rh-IGF-I : Recombinant insulin-like growth factor-I

• RIA : Radioimmunoassay

• RIBA : Recombinant immunoblot assay

RRA : Radio receptor assayS.D. : Standard Deviation

• SGA : Small - for - gestational age

Sm : SomatomedinSm-c : Somatomedin-C

• SRIF : Somatotropin release inhibitory factor

SS : SomatostatinT.bil : Total bilirubin

• TLC : Total leucocytic count

• TSF : Triceps skin fold thickness

• TSFP : Triceps skin fold thickness percentile

• TSP : Total serum protein

• Vit : Vitamin

• WAM : Weight - for - age percentage of the median

WAP
Weight - for - age percentile
WAZ
Weight - for - age Z score

• wt : Weight

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