

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

حديث شريف

عن أبي هريرة رضي الله عنه ،

أن رسول الله صلى الله عليه وسلم قال:

"وَمَنْ سَلَكَ طَرِيقًا يَلْتَمِسُ فِيهِ عِلْمًا سَهَّلَ اللَّهُ
لَهُ طَرِيقًا إِلَى الْجَنَّةِ"

صدق رسول الله صلى الله عليه وسلم

رواه مسلم

EVALUATION OF PLASMA LEVEL OF
COMPLEXED LIPOCALIN-2 WITH

MATRIX METALLOPROTEINASE-9
IN PATIENTS WITH
HEPATOCELLULAR CARCINOMA.

Thesis
Presented to the Medical Research Institute
Alexandria University

In partial fulfillment of the
Requirements for the Master Degree
In

Chemical Pathology

By

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M.B.B.Ch.
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تقييم مستوى مركب ليبوكالين-٢ مع أنزيم قالب البروتينيز المعدنى-٩
في بلازما الدم في مرضى سرطان الكبد.

رسالة

مقدمة إلى معهد البحوث الطبية - جامعة الإسكندرية
إيفاءً جزئياً لشروط الحصول على
درجة الماجستير

في

الباثولوجيا الكيميائية

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LIST OF ABBREVIATIONS

- $\Delta A/\text{min}$:Change in absorbance per minute
- λ :Wave length
- A_1M : α_1 Microglobulin
- A_{2U} : α_{2u} -Globulin
- **ACS** :Automated chemiluminescent system
- **AF** :Aflatoxin
- AFP :Alpha feto protein
- AGPs : α_1 acid glycoproteins
- ALP :Alkaline phosphatase
- ALT :Alanine transaminase
- ANOVA :Analysis of variance
- AP-1 :Activator protein-1
- Apo D :Apolipoprotein D
- A_s :Absorbance of standard
- ASN :Asparagin
- AST :Aspartate transaminase
- A_T :Absorbance of test
- BBP :Bilin-binding protein
- BCG :Bromo cresol green
- Blg : β -Lactoglobulin
- Ca^{++} :Calcium
- CBC :Complete Blood Count
- CH :Chronic hepatitis
- CIMT :Carotid intima media thickness
- Con A :Concanavalin A
- COOH :Carboxy group
- CRP :C-reactive protein
- C_s :Concentration of standard
- C_T :Concentration of test
- ECM :Extracellular matrix
- EDTA :Ethylenediaminetetraacetic acid
- EGF :Epidermal growth factor
- ELISA :Enzyme Linked Immunosorbent Assay
- E-PHA :Erythroagglutinating phytohemagglutinin
- FGF-b :Basic fibroblast growth factor
- FPG :Fasting plasma glucose.
- GGT :Gamma glutamyl transferase
- GL :Gelatinase
- Hb :Haemoglobin
- HBsAg :Hepatitis B virus surface antigen
- HBV :Hepatitis B virus
- HCC :Hepatocellular carcinoma
- HCT :Heamatocrit
- HCV :Hepatitis C virus
- HE :Hepatic encephalopathy

- HRP :Horseraddish peroxidase
- IEF :Isoelectric focussing
- IHA :Indirect haemagglutination reaction
- kDa :kilo Dalton.
- LAZ :Lazarillo
- LCA :Lens culinaris agglutinin
- LCN-2 :Lipocalin-2
- LDH :Lactate dehydrogenase.
- M :Molar
- MAC :Membrane attack complex
- MCH :Mean corpuscular heamoglobin
- MCHC :Mean corpuscular heamoglobin concentration
- MCV :Mean corpuscular volume
- MDH :Malate dehydrogenase.
- MMPi :Matrix metalloproteinase Inhibitor
- MMPs :Matrix metalloproteinases
- MT-MMPs :Membranous type-Matrix metalloproteinases
- MUP :Major urinary protein
- MVD :Microvessel density
- N :Normal
- NAD :Nicotineamide adenine dinucleotide
- NADH :Reduced nicotineamide adenine dinucleotide
- NGAL :Neutrophil gelatinase associated lipocalin
- NGF :Nerve growth factor
- NH₂ :Amino group
- NTBI :Non-transferrin-bound iron pool
- OBP :Odorant-binding Proteins
- PA :Plasminogen Activator
- PBAS :Probasin
- PDGF :Platelet derived growth factor
- PGDS :Prostaglandin D synthase
- PP14 :Pregnancy associated protein 14
- POPG :Post 75 gram oral glucose load plasma glucose
- PT :Prothrombin time
- PURP :Purpurin
- PV :Predictive value
- QSP :Quiescence-specific protein
- RABP :Retinoic acid-binding protein
- RBCs :Red blood cells
- RBP :Retinol-binding protein
- RLUs :Relative light units
- ROC :Receiver operator characteristic
- SCRs :Structurally conserved regions
- SD :Standard deviation
- SL :Stromelysin
- TGF- β :Tranforming growth factor beta
- TIMP :Tissue inhibitor of metalloproteinase

- TMB :Tetramethyl benzidine
- TNF- α :Tumor necrosis factor alpha
- uPA :Urokinase-type plasminogen Activator
- VEGF :Vascular endothelial growth factor.
- VEGP :Von Ebner's-gland proteins
- WBCs :White blood cells
- Zn⁺⁺ : zinc

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