شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ منوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

بعض الوثائق الاصلية تالفة

بالرسالة صفحات لم ترد بالاصل

COMPARATIVE CINICAL STUDY ON THE EFFECT OF ANGIOTENSIN CONVERTING ENZYME INHIBITORS AND ANTIOXIDANTS ON THE PATIENTS WITH DIABETIC NEPHROPATHY

A Thesis Presented

By

Islam El-Tantawy Hussin
B.Sc. Pharmaceutical sciences

For

Partial fulfillment for the degree of master in Pharmaceutical Sciences (Clinical pharmacy)

DEPARTMENT OF CLINICAL PHARMACY
FACULTY OF PHARMACY
TANTA UNIVERSITY

1422
2001

Supervisors

Prof. Dr.

Emad A. El-Bassiouni

Prof. of Pharmacology
Dept. of Pharmacology
Medical Research Institute
Alexandria University

Dr.

Gamal A. El-Azab

Assist. Prof. of Clinical Pharmacy
Dept. of Clinical Pharmacy
Faculty of Pharmacy
Tanta University

Dr.

Mabrouk R. El-Shiekh

Assist. Prof. of Internal Medicne
Dept. of Internal Medicne
Faculty of Medicine
Tanta University

Dr.

Nahla E. El-Ashmawy

Lecturer. of Biochemistry
Dept. of Biochemistry
Faculty of Pharmacy
Tanta University

بسم الله الرحمن الرحيم

قالوا سبحانك لاعلم لنا إلا ماعلمتنا

إنك أنت العليم الحكيم

صدق الله العظيم

"البقرة ٣٢"

ACKNOWLEDGEMENT

It gives me a great Pleasure to acknowledge the effort of **Prof. Dr. Emad A. El-Bassiouni,** *Professor of Pharmacology, Medical Research Institute, Alexandria University, who suggested the subject, kindly and patiently supervised this work and devoted much of his time and effort to give helpful advice. His enthusiastic push and meticulous supervision are all deeply and heartly appreciated.*

I am profoundly grateful to **Dr. Gamal A. El-Azab,** *Assistant Professor of Clinical Pharmacy, faculty of Pharmacy, Tanta University, for suggesting the subject and for his active supervision, and guidance throughout the work.*

My deepest appreciation to **Dr.Mabrouk R. El-Shiekh** *Assistant Professor of Internal Medicine, Faculty of Medicine ,Tanta University, for his valuable instructions and assistance.*

I owe special gratitude to **Dr. Nahla E. El-Ashmawy,** *Lecturer of Biochemistry, Faculty of Pharmacy, Tanta University, for her continuous supervision, kind assistance and tremendous help throughout the work and in the revision of the thesis.*

I would like to express my sincere gratitude to **Dr. Osama. H. Ibrahim,** *Assistant Professor and Head of department of Clinical Pharmacy, Faculty of Pharmacy, Tanta University, who contributed a lot to make this work a reality.*

ABBREVIATION

ACE-I: Angiotensin converting enzyme inhibitors.

ACE: Angiotensin converting enzyme.

ADP: Adenosine diphosphate.

ALT: Alanine aminotransferase.

AST: Aspartate aminotransferase.

ATP: Adenosine triphosphate.

CCl_4: Carbon tetrachloride.

CE: Cholesterol esterase.

cGMP: Cyclic guanosine monophosphate.

COx: Cholesterol oxidase.

CVD: Cardiovascular disease.

FBS: Fasting blood sugar.

GBM: Glomerular basement membrane.

GFR: Glomerular filtration rate.

GSSG: Oxidized glutathione.

GPx: Glutathione peroxidase.

GSH: Reduced glutathione.

HbA_{1c}: Glycosylated hemoglobin.

IDDM: Insulin-dependent diabetes mellitus.

IgG : Immunoglobulin G

LDL: Low density lipoprotein.

MDA: Malondialdehyde.

NAD : Nicotinamide adenine dinucleotide

NADH : Reduced nicotinamide adenine dinucleotide

NADP: Nicotinamide adenine dinucleotide phosphate

NIDDM: Non--insulin-dependent diabetes mellitus.

PBS: Post-prandial blood sugar.

pGPx: Plasma specific glutathione peroxidase .

ROS: Reactive oxygen species.

RPF: Renal plasma flow.

sGPx: Selenium dependent glutathione peroxidase.

SOD: Superoxide dismutase.

TBARS: Thiobarbituric acid reactive substances.

TG: Triglycerides.

tRNA: Transfer ribonucleic acid.

UAER: Urinary albumin excretion rate.

LIST OF TABLES

LIST OF FIGURES