



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

EFFECT OF HIGH FLUX DIALYZERS VERSUS HIGH EFFICENCY DIALYZERS ON LIPID PROFILE IN HEMODIALYSIS PATIENTS

Thesis submitted for the partial fulfillment of the master degree
In internal medicine

By

WALEED ANWAR MOHAMED ABDEL MOHSEN
M.B., B.Ch.



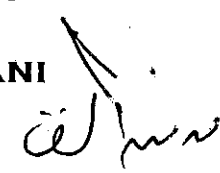
Supervised by

PROF. DR. BADAWY LABIB MAHMOUD
PROFESSOR OF INTERNAL MEDICINE, AND
NEPHROLOGY



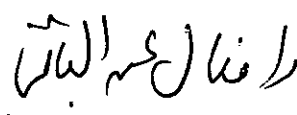
HEAD OF NEPHROLOGY DEPARTMENT,
FACULTY OF MEDICINE-AIN SHAMS UNIVERSITY

PROF. DR. MOHAMED MAHMOUD ABDEL GHANI
PROFESSOR OF INTERNAL MEDICINE AND
NEPHROLOGY



FACULTY OF MEDICINE-AIN SHAMS UNIVERSITY

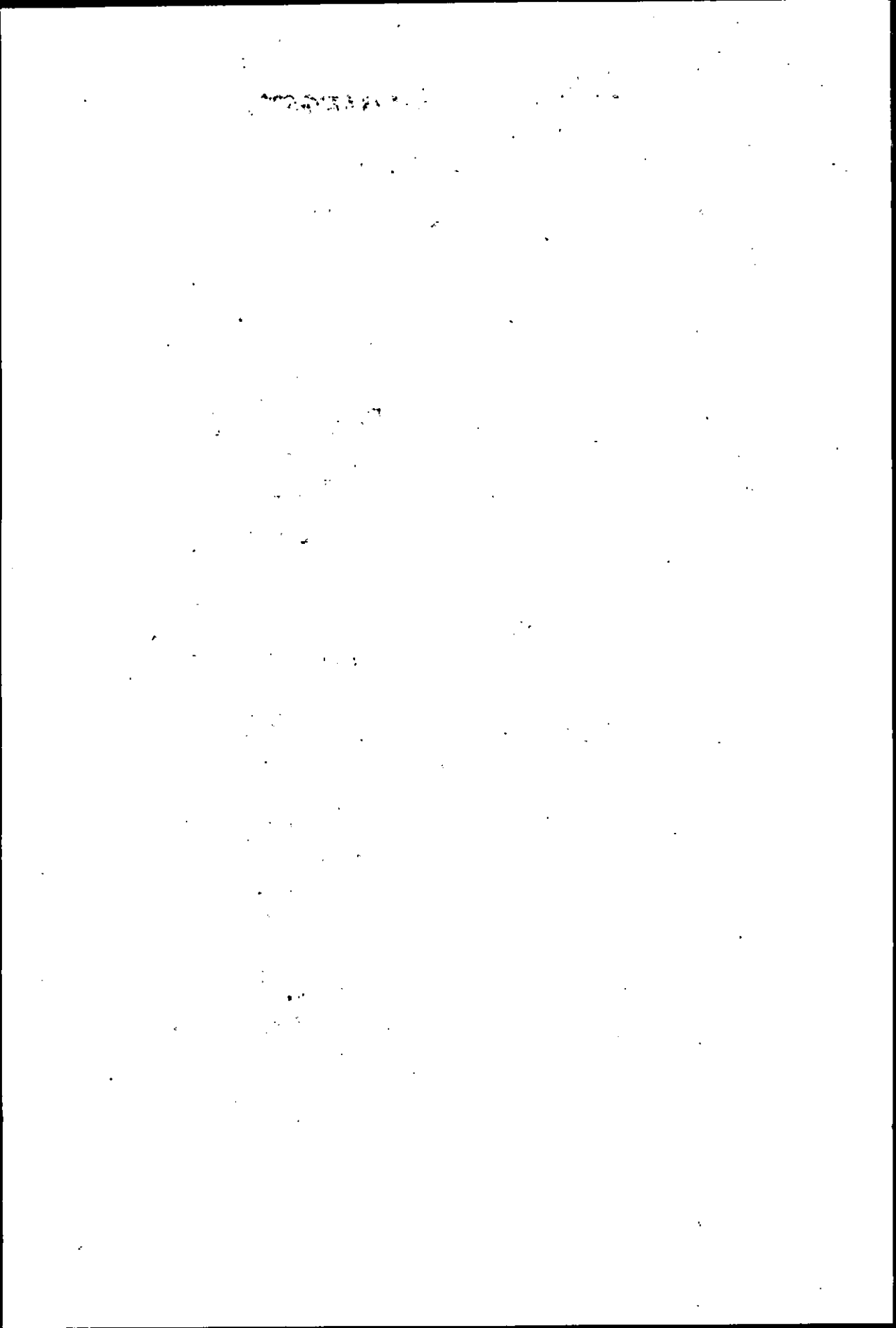
DR. MANAL ABDEL BAKY MAHMOUD
LECTURER OF CLINICAL AND CHEMICAL
PATHOLOGY



FACULTY OF MEDICINE-AIN SHAMS UNIVERSITY

AIN SHAMS UNIVERSITY
2001

B 0219



ACKNOWLEDEMENT

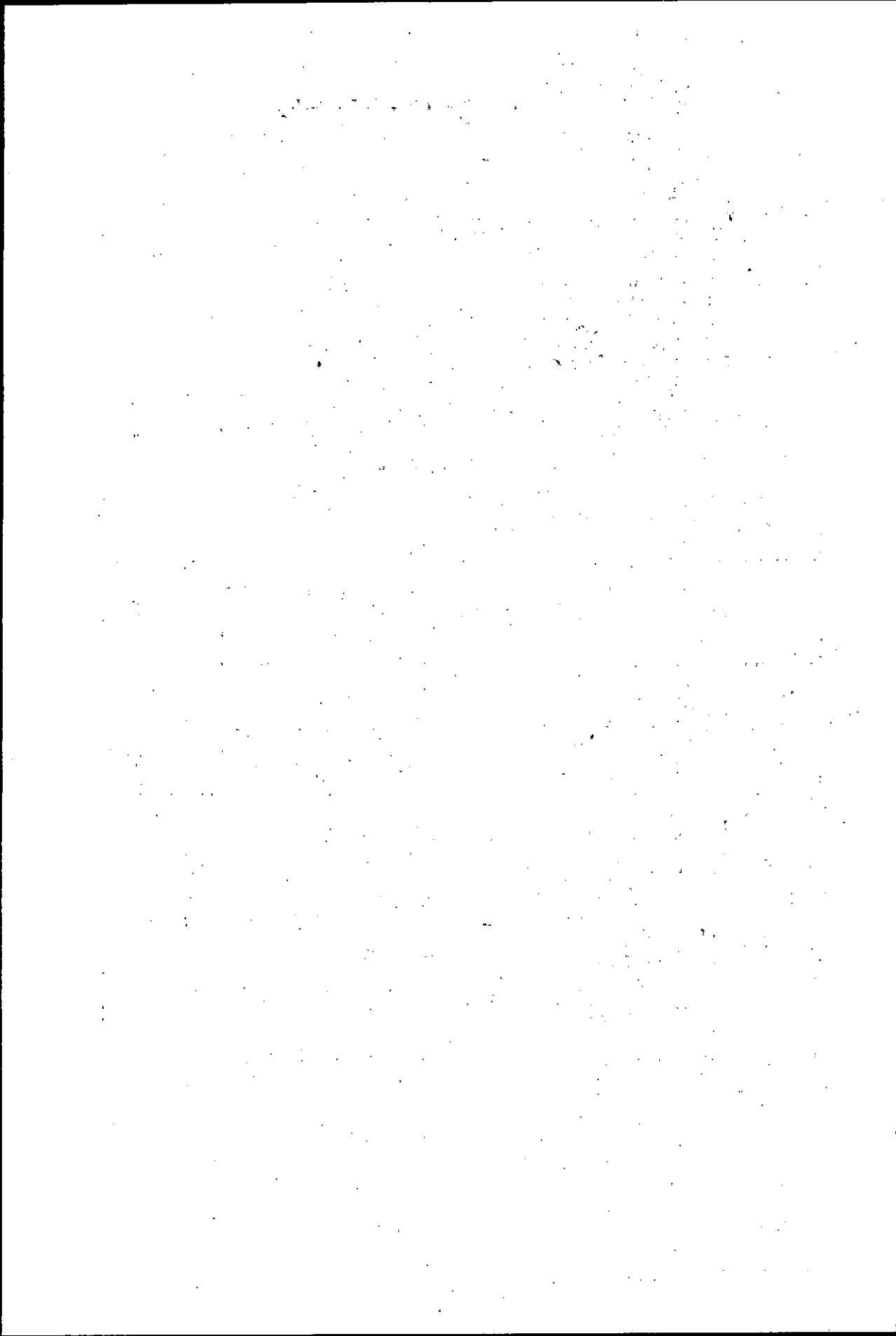
My thanks to ALLAH for the strength and insistence that I was given during the achievement of this work.

I find no words by which I can express my sincere and deep gratitude, appreciation and respect to Prof. Dr. BADAWY LABIB MAHMOUD, professor of internal medicine and nephrology, the head of nephrology department, faculty of medicine, Ain Shames university, for the great support, guidance and advice during supervising this study.

Also my profound gratitude to Prof. Dr. MOHAMED ABDEL GHANI, professor of internal medicine and nephrology, faculty of medicine, Ain Shames university, for his sincere unlimited help, support and supervision throughout the study.

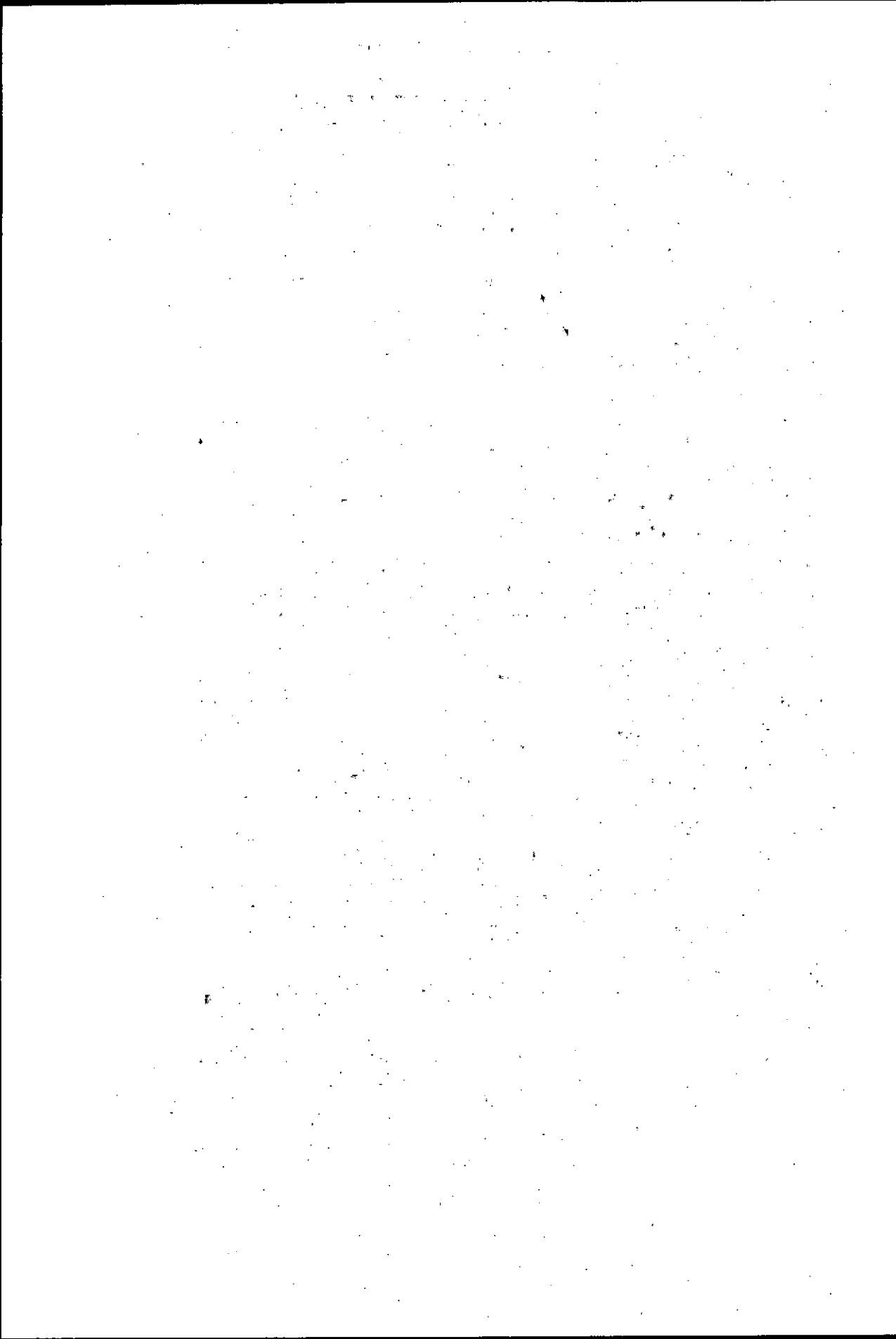
I would like to thank Dr. MANAL ABDEL BAKY, lecturer of clinical and chemical pathology, faculty of medicine, Ain Shames University for her kind help and support.

Also I would like to thank all the staff members of the dialysis unit in Ain Shames university hospitals in particular Dr. ABDEL RAZEK DESOKEY for his kind help.



List Of Contents

Title	Page
INTRODUCTION & AIM OF THE WORK	1
REVIEW OF LITERATURE	3
• Lipid metabolism	3
• Lipid and lipoprotein metabolism in chronic renal failure and dialysis patients	28
• Membranes for dialysis	37
• Effect of different dialysis membranes on lipids and lipoproteins	85
PATIENTS & METHODS	94
RESULTS	102
DISCUSSION	122
SUMMARY & CONCLUSION	130
REFERENCES	134
ARABIC SUMMARY	



List Of Tables

Table		Page
Table (1)	Apolipoproteins of human plasma lipoproteins	5
Table (2)	Classification of primary hyperlipidemia	25
Table (3)	Sterilizability of membrane polymers	48
Table (4)	Steam sterilization	49
Table (5)	Ethylene oxide (ETO) sterilization	49
Table (6)	Sterilization with Gamma irradiation	50
Table (7)	Dialysis conditions with effect on clearance	60
Table (8)	Consequences of bioartificial interface	74
Table (9)	Complement activation: pathological consequences	77
Table (10)	Patient characteristics	107
Table (11)	The etiology of renal failure and number of patients in each group	107
Table (12)	The differences in total cholesterol, HDL-C, LDL-C, Lipoprotein (a), TG, Albumin, creatinine and Urea in group I at the beginning of the study and after 3 months	108

List of figures

Figure		Page
Figure (1)	Normal metabolism of plasma lipoproteins	22
Figure (2)	Apparent sieving coefficient for B ₂ microglobulin during hemofiltration	54
Figure (3)	Complement activation using different membranes	55
Figure (4)	EPO- binding to dialysis membranes	56
Figure (5)	Reduction of FUT-175 through adsorption by dialysis membranes	57
Figure (6)	Schematic presentation of the releasing phenomenon	67
Figure (7)	Blood material interface reaction	69
Figure (8)	Difference in lipid profile at the beginning of the study and after 3 months in group I.	115
Figure (9)	Difference in lipid profile at the beginning of the study and after 3 months in group II.	116
Figure (10)	Difference in lipid profile at the beginning of the study and after 3 months in group III.	117

Figure (11)	Difference between the study groups as regard Albumin and Creatinine at the beginning of the study and after 3 months	118
Figure (12)	Mean difference of lipid profile among the study groups between different intervals	119
Figure (13)	Mean difference of Lipoprotein (a) among the study groups between different intervals.	120
Figure (14)	Mean difference of Albumin and creatinine among the study groups between different intervals	121