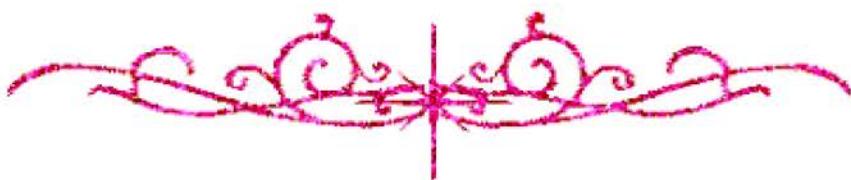




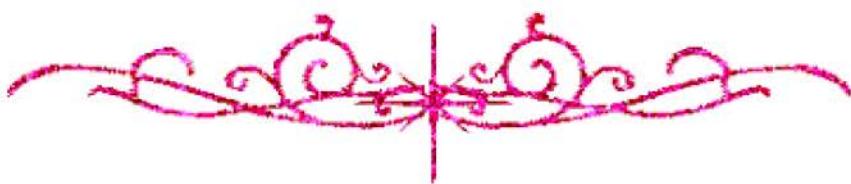
شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم





# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

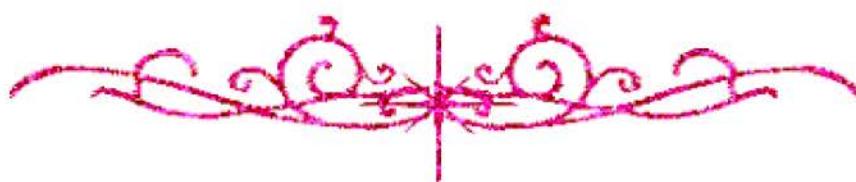
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



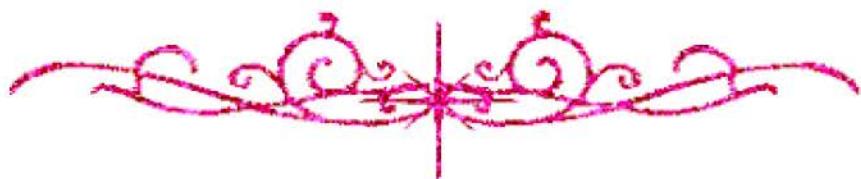
يجب أن

تحفظ هذه الأقراص المدمجة بعيداً عن الغبار



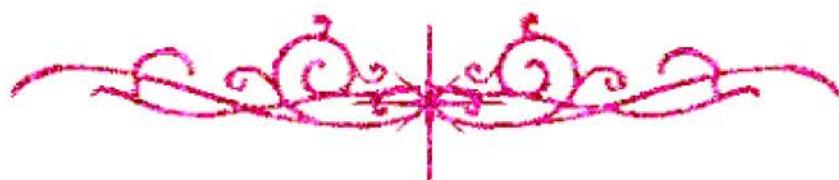


بعض الوثائق  
الأصلية تالفة





بالرسالة صفحات  
لم ترد بالاصل

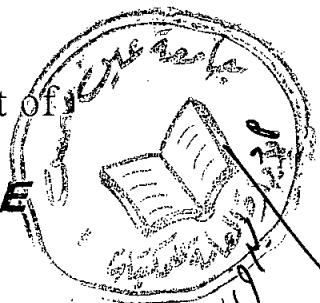


# ASSESSMENT OF PULMONARY FUNCTIONS IN CHRONIC RENAL FAILURE PATIENTS WITH DIFFERENT HAEMODIALYSIS REGIMEN

THEESIS

Submitted for partial fulfillment of  
Master Degree in:

**INTERNAL MEDICINE**



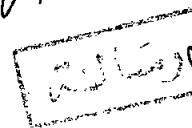
6/16.026  
H-H-

*Presented by*

**Hazem Hamed Khalil**  
M.B., B.Ch

6/14/5

a/12



*Under the supervision of*

**Prof. Dr. Badawy Labib Mahmoud**

Professor of Internal medicine and Nephrology  
Head of Nephrology Department  
Faculty of Medicine, Ain Shams University

Dr. El-Sherif

9/12

**Dr. Ahmed Abdulkader Ahmed**

Assist. Prof. of Internal medicine and Nephrology  
Faculty of Medicine  
Ain Shams University

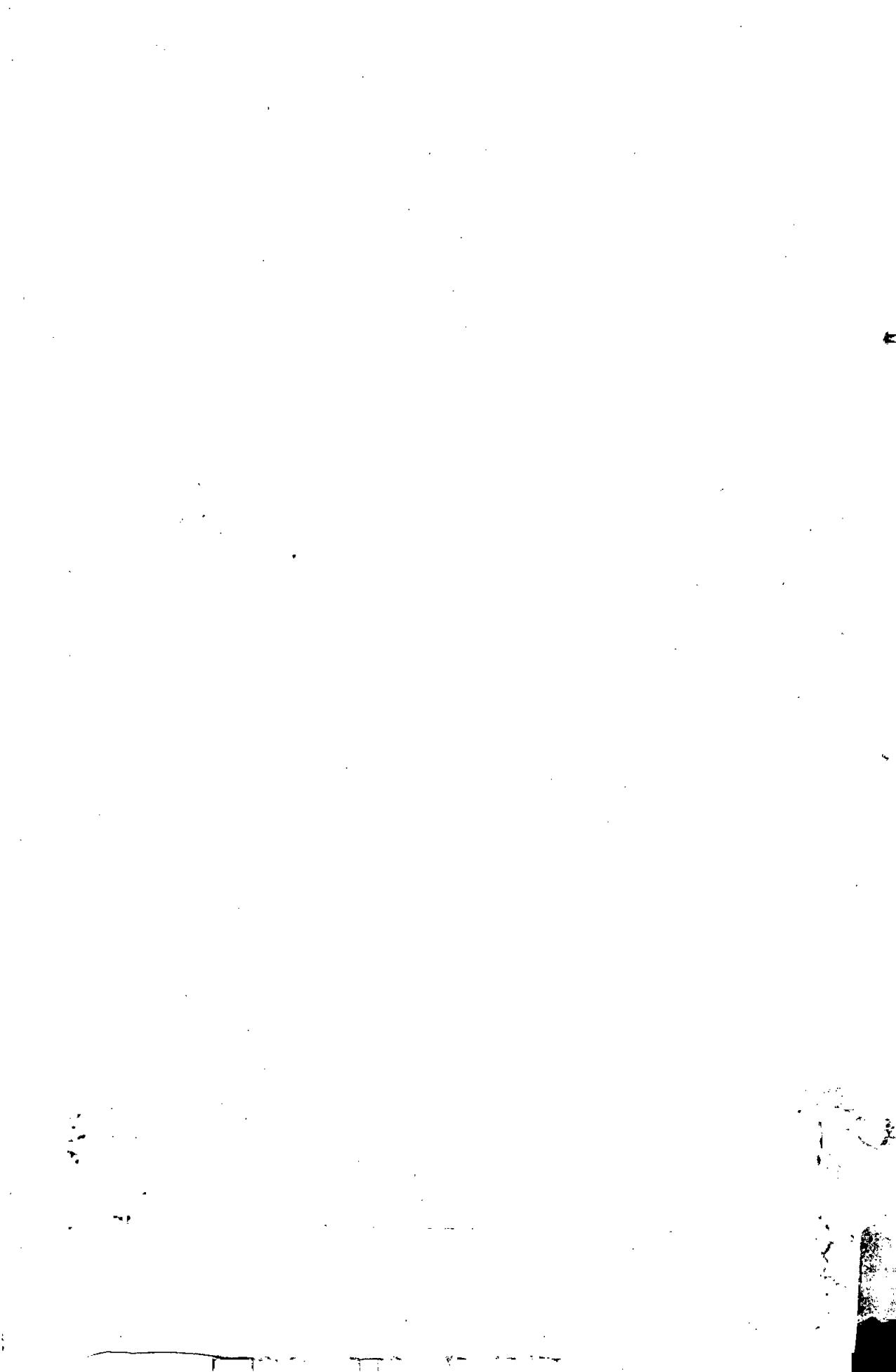
Dr. El-Sherif  
9/12

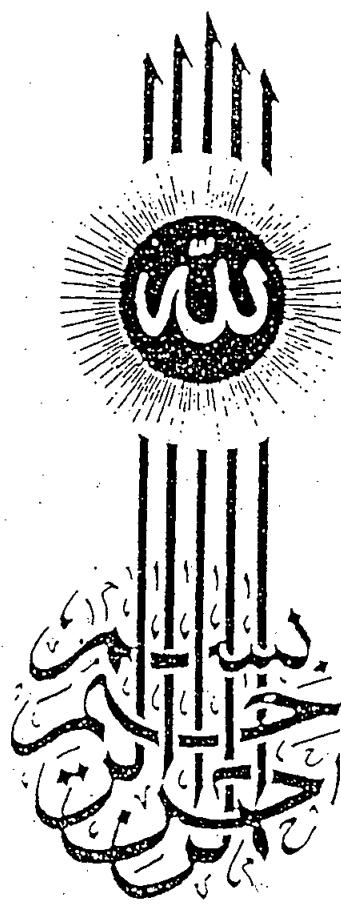
**Dr. Magdi Mohamed Saed El-Sharkawy**

Lecturer of Internal medicine and Nephrology  
Faculty of Medicine  
Ain Shams University

FACULTY OF MEDICINE  
AIN SHAMS UNIVERSITY  
2000

Dr. El-Sherif  
9/12





وَقُلْ رَبِّنِي عَلِمَا

صَدِيقُ اللَّهِ الْعَظِيمِ

(قرآن كريم سورة طه - آية ١١٤)



# **ACKNOWLEDGEMENT**

*First and foremost, thanks are due to ALLAH,  
to whom I relate any success in achieving  
any work in my life.*

*My words stand short of my supreme gratitude and thanks to Prof. Dr. Badawy Labib Mahmoud, Professor of Internal Medicine and Nephrology, and Head of Nephrology Department, Faculty of Medicine, Ain Shams University, for his continuous supervision, valuable guidance, generous encouragement, help & overall his moral support and kindness that gave me and this work a lift to the scope of light.*

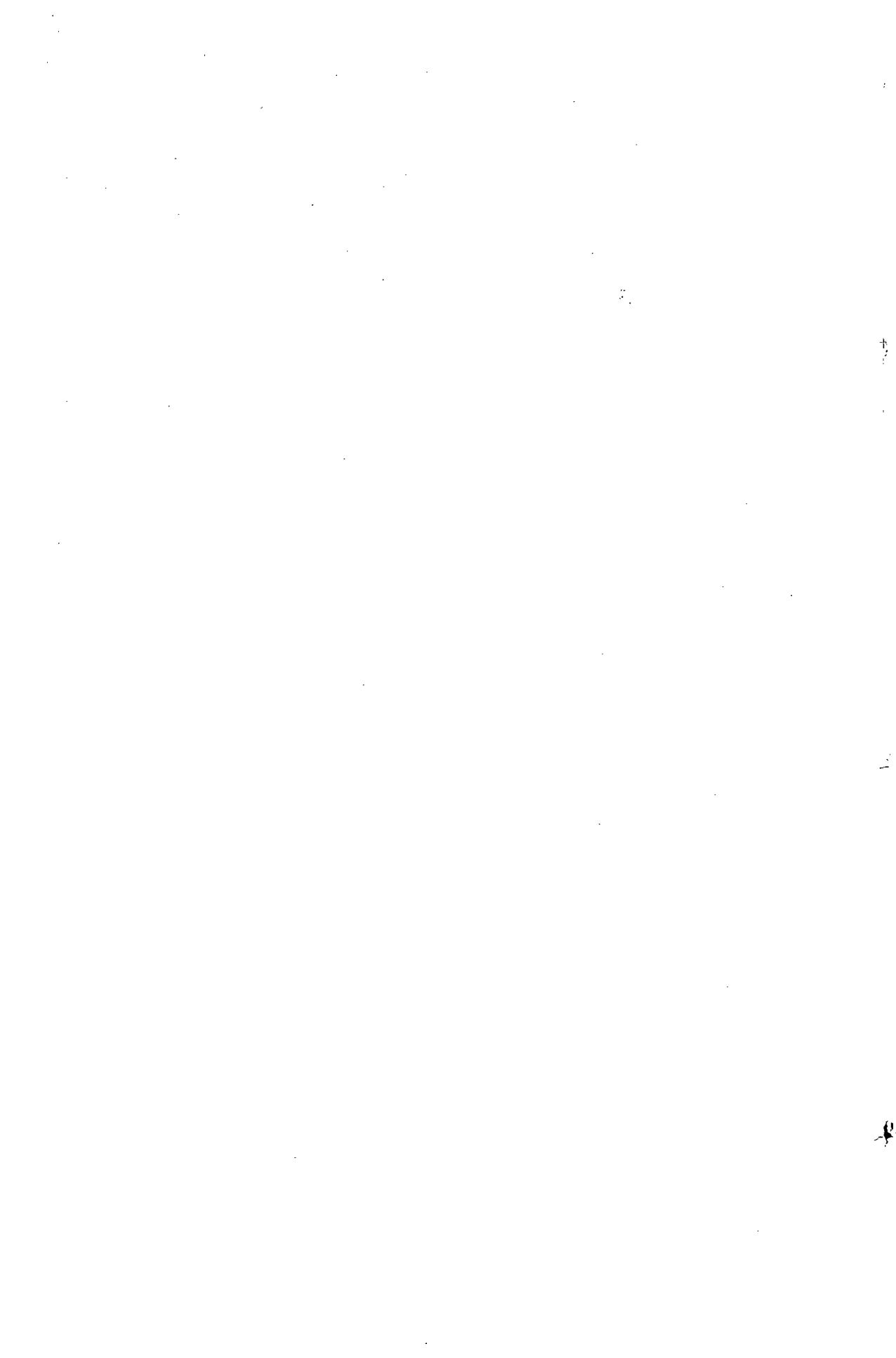
*Special thanks are due to Assistant Prof. Dr. Ahmed Abdulkader Ahmed, Assistant Professor of Internal Medicine and Nephrology, Faculty of Medicine, Ain Shams University, for dedicating so much of his precious time and effort, and for his honest and constant guidance to complete this work.*

*I am deeply indebted to the great help offered by Dr. Magdi Mohamed Saed El-Sharkawy, Lecturer of Internal Medicine and Nephrology, Faculty of Medicine, Ain Shams University; and Dr. Yasser Moustafa Mohamed, Lecturer of Chest diseases, Faculty of Medicine, Ain Shams University, to whom I owe many valuable remarks and a lot of precious time and effort, their guidance and kind assistance supported in completing this work.*

*Special thanks go to Dr. Osama Mahmoud Kamal, Lecturer of Internal Medicine and Nephrology, Faculty of Medicine, Ain Shams University, for his helpful suggestions, unending patience and invaluable assistance.*

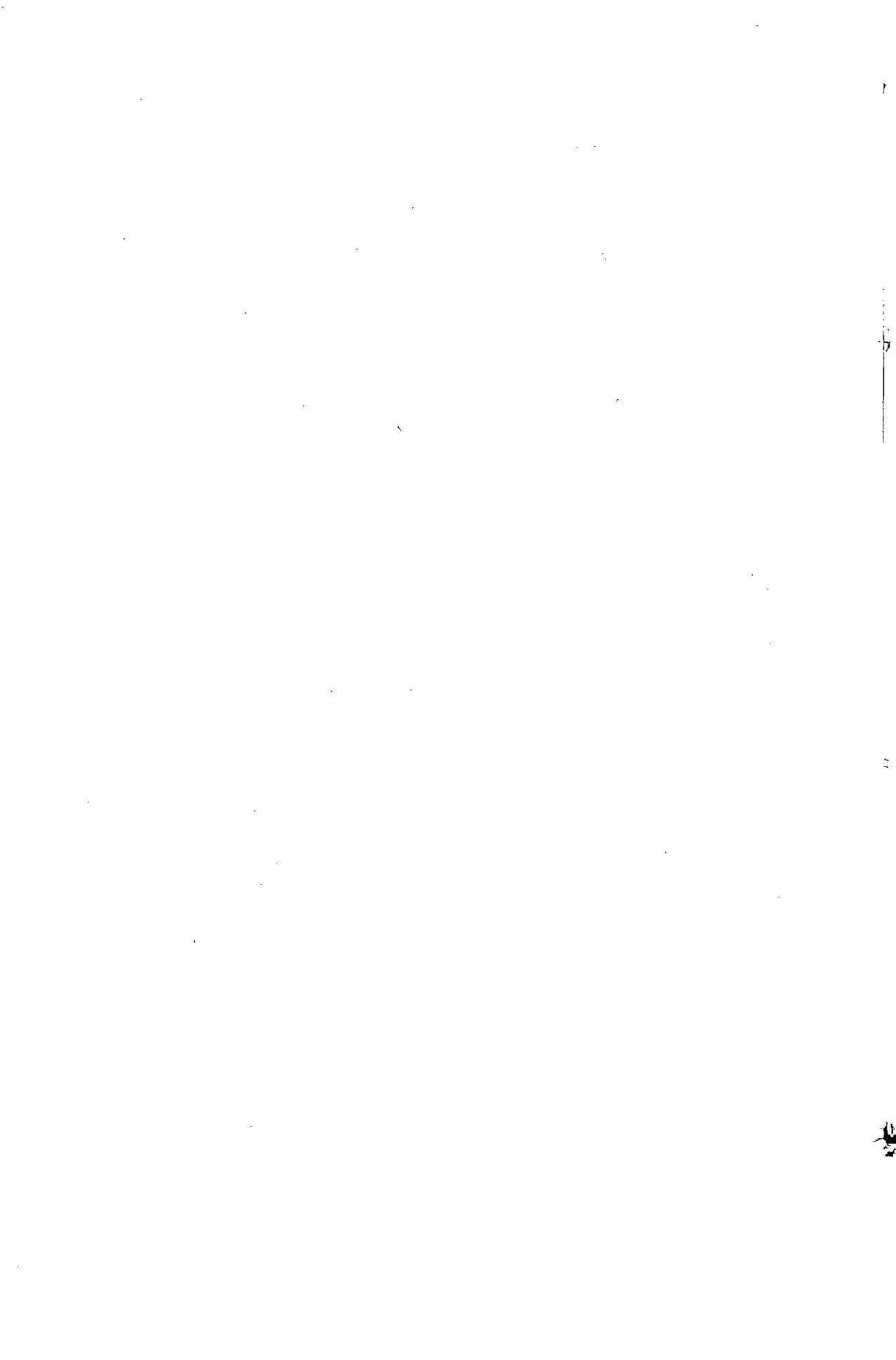
*Finally, I wish to thank all members of My Family for their continuous help, encouragement and support.*

**Hazem H.Khalil.**



# **INDEX**

<b>Part</b>	<b>Subject</b>	<b>Page</b>
I	Introduction and Aim of The Work	1
II	Review of Literature	
	* Chronic renal failure and uraemia .....	3
	* Lung and Pulmonary complications in chronic renal failure .....	34
	* Pulmonary function tests .....	55
	* Effect of chronic renal failure and hemodialysis on pulmonary function tests .....	91
III	Subjects and Methods .....	106
IV	Results .....	111
V	Discussion .....	145
VI	Summary and Conclusion .....	152
VII	Recommendations .....	155
VIII	References .....	157
IX	Arabic summary .....	٢-١



## **LIST OF TABLES**

No.	Title	Page
1	Diagnosis of chronic renal disease	4
2	Pathogenesis of the uraemic syndrome	5
3	The clinical effects of renal failure	6
4	Major clinical manifestations of the uraemic syndrome	7
5	Hormonal alterations in uremia	8
6	Disturbances of calcium-phosphate metabolism	8
7	Management of CRF	27
8	Indications for initiation of dialysis	29
9	Diagnosis of ventilatory defect	78
10	Severity of pulmonary impairment	79
11	Arterial blood gas patterns in major causes of hypoxemia	79
12	The control group (group 1)	116
13	PFTs of the control group (group 1)	117
14	CRF group on thrice/week HD	118
15	PFTs and interpretations of CRF group on thrice/week HD (group 2)	119
16	DD patients (group 3)	120

## LIST OF TABLES

(continue)

17	PFTs and interpretations of DD patients (group 3)	122
18	Analytical statistical study for all patients versus control as regards PFTs	124
19	Analytical statistical study for group 2 versus 3 patients as regards PFTs	125
20	Analytical statistical study for group 2 & 3 patients as regards blood urea and serum creatinine	126
21	Comparison of results of PFTs patterns among group 2 and 3 patients	126