

Serum Anti-C1q Antibody as Early Predictor of Lupus Nephritis in Pediatrics

Thesis

65656

*Submitted for partial fulfillment of the Master Degree in
Pediatrics*

By

Neveen Tawakol Younis Rizk,
M.B., B.Ch.

Under Supervision of

Prof. Dr. Yehia Mohamed El-Gamal

Professor and Chairman of The Department of Pediatrics

Head of The Paediatric Allergy and Immunology Unit

Faculty of Medicine, Ain Shams University

Dr. Ihab Zaki El-Hakim

Lecturer of Pediatrics

Faculty of Medicine, Ain Shams University

Dr. Amal Zaghloul Abd El-Halim

Lecturer of Clinical Pathology

Faculty of Medicine, Ain Shams University

*Faculty of Medicine
Ain Shams University*

1999



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"قَالُوا سُبْحَانَكَ لَا

عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا

إِنَّكَ أَنْتَ الْعَلِيمُ

الْحَكِيمُ"

صدق الله العظيم

سورة البقرة

آية ٣٢

ACKNOWLEDGMENT

Thanks first and last to God.

I would like to express my deep gratitude, thanks, and respect to, *Professor Dr. Yehia Mohamed El-Gamal*, Professor and Chairman of the Department of Pediatrics and Head of Pediatric Allergy and Immunology Unit, Faculty of Medicine, Ain Shams University, for his concern, guidance and continuous encouragement. I consider my self very fortunate to work under his supervision.

I am greatly grateful to *Dr. Ihab Zaki El-Hakim*, Lecturer of Pediatrics, Faculty of Medicine, Ain Shams University, for his continuous support and meticulous guidance during this work .

I am greatly thankful to *Dr. Amal Zaghloul Abd El-Halim*, Lecturer of Clinical Pathology, Faculty of Medicine, Ain Shams University, for her assistance during the practical part of this work.

Last but not least, I have to thank my family for lending me their help and support, which enabled me to carry out this work.

CONTENTS

List of Abbreviations	v
List of Tables	vii
List of Figures	xi
Introduction	1
Aim of The Work	3
Review Of Literature	5
SLE.....	5
Complement system	31
Subjects & Methods.....	51
Results	55
Discussion	83
Summary & Conclusion	91
Recommendations	95
References	97
Arabic Summary	

List of Tables

<i>Table</i>	<i>Comment</i>	<i>P</i>
Table 10	shows the constituents of the complement system	32
Table 11	Clinical data of patients with microalbuminuria (Group A)	55
Table 12	Laboratory data of patients with microalbuminuria (Group A)	56
Table 13	Clinical data of patients with macroalbuminuria (Group B)	57
Table 14	Laboratory data of patients with macroalbuminuria (Group B)	58
Table 15	Clinical data of patients with chronic renal failure(Group C)	59
Table 16	Laboratory data of patients with chronic renal failure (Group C)	60
Table 17	Clinical and laboratory data of control subjects (Group T)	61
Table 18	Comparison between mean values of age in all groups	62
Table 19	Comparison between mean values of disease duration in all groups of patients	63
Table 20	Comparison between mean values of frequency of hospitalization in all groups of patients	63

<i>Table</i>	<i>Comment</i>	<i>P</i>
Table 21	Comparison between mean values of Weight & Height Centiles in all groups	64
Table 22	Comparison between mean values of systolic & diastolic blood pressure centiles in all groups	65
Table 23	Comparison between mean values of serum creatinine in all groups.	67
Table 24	Comparison between mean values of BUN in all groups.	68
Table 25	Comparison between mean values of EGFR in all groups	70
Table 26	Comparison between mean values of ESR & C3 in all groups.	72
Table 27	Comparison between mean values of serum anti-C1q antibodies in all groups.	74

LIST OF FIGURES

<i>Figure no</i>	<i>Comment</i>	<i>P</i>
Figure 1	Classification of glomerular lesions in SLE	22
Figure 2	Activation pathways of complement systems	34
Figure 3	Mean values of serum creatinine & BUN in all groups	66
Figure 4	Mean values of EGFR in all groups	69
Figure 5	Mean values of ESR & C3 in all groups	71
Figure 6	Mean values of C1q in all groups	73
Figure 7	Correlation between C1q and disease duration	76
Figure 8	Correlation between C1q and C3 in all patients	77
Figure 9	Correlation between C1q & ESR in all patients	78
Figure 10	Correlation between C3 & ESR in all patients	79
Figure 11	Correlation between C1q & EGFR in group A	80
Figure 12	Correlation between C1q & EGFR in group B	80
Figure 13	Correlation between C1q & EGFR in group C	81

Introduction

