



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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بالرسالة صفحات لم ترد بالاصل

**Urinary N-Acetyl-Beta-D-Glucosaminidase and
Beta-2 Microglobulin Excretion In Primary
Nephrotic Children**

THESIS

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**Submitted For Partial Fulfillment
Of Master Degree In Pediatrics**

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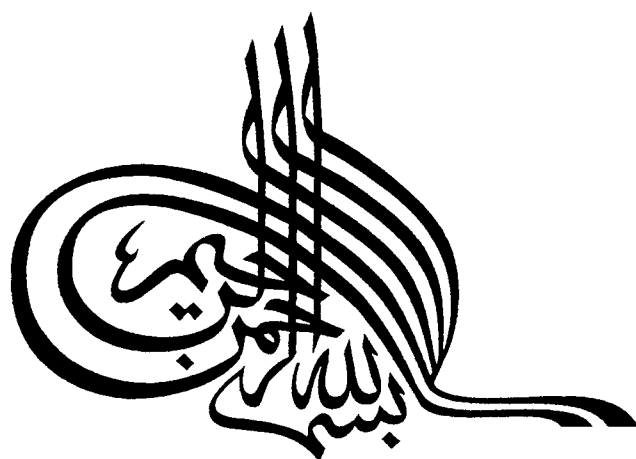
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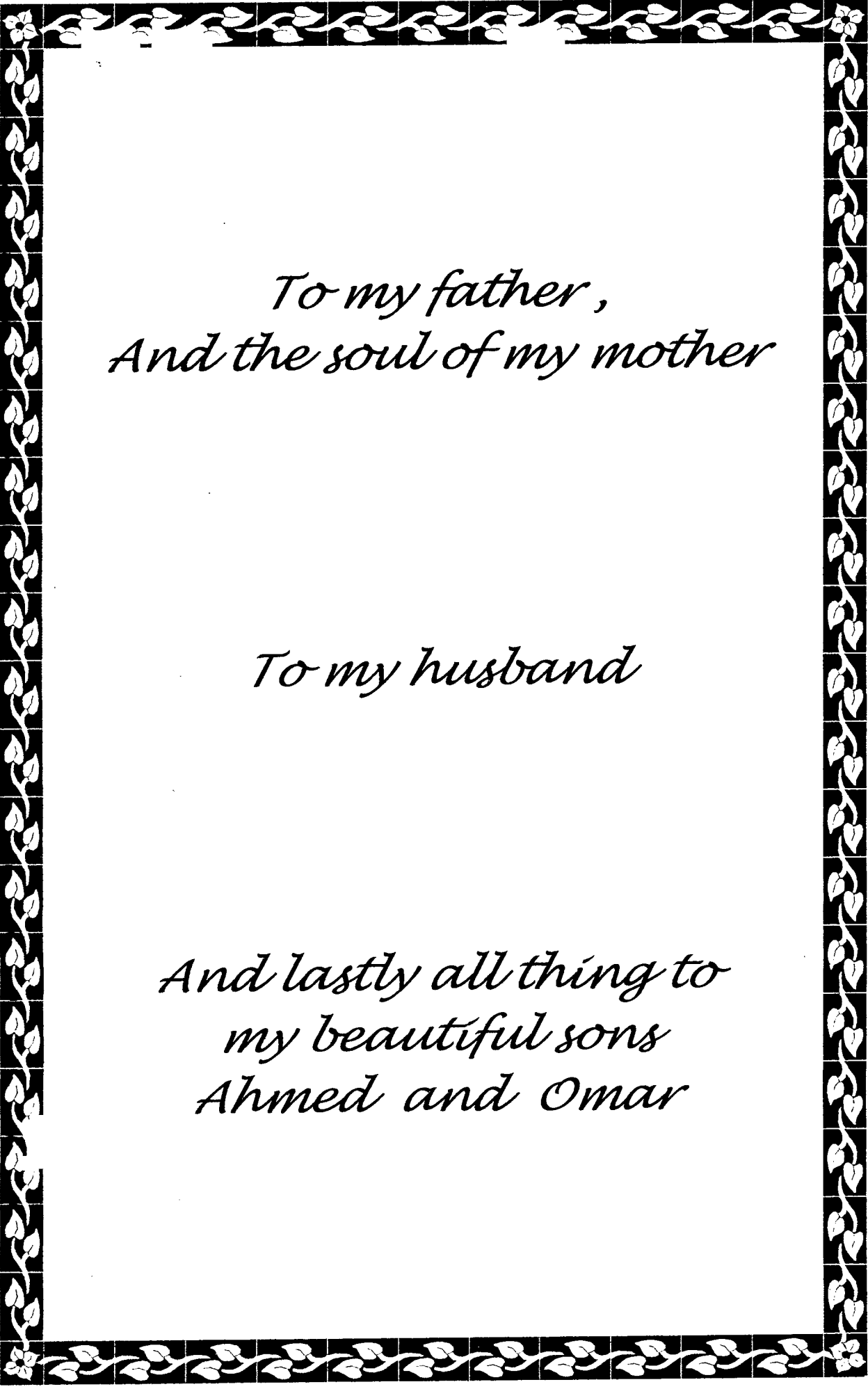
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وَبَسَّالْوَيْتِكَ عَنْ الرُّوحِ قُلِ الرُّوحُ مِنْ أَمْرِ رَبِّي

وَمَا أَوْثَقْتُهُ مِنَ الْعِلْمِ إِلَّا قُلُوبًا

صدق الله العظيم

(الإسراء: 85)



*To my father ,
And the soul of my mother*

To my husband

*And lastly all thing to
my beautiful sons
Ahmed and Omar*

List of abbreviations

Abbreviations	Meaning of abbreviations
NS	Nephrotic syndrome
SRNS	Steroid resistant nephrotic syndrome
SSNS	Steroid sensitive nephrotic syndrome
SSNS-RL	Steroid sensitive nephrotic syndrome with relapse
SSNS-RmP	Steroid sensitive nephrotic syndrome with remission with prednisone
SSNS-Rm	Steroid sensitive nephrotic syndrome with remission without prednisone
G	Gram
mg	Milligram
/24 hr	Per 24 hours
/m²	Per meter square
/L	Per liter
/dl	Per deciliter
/d	Per day
/Kg	Per killogram
HDL	High denesity lipoprotein
LDL	Low denesity lipoprotein
VLDL	Very low denesity lipoprotein
HMG-coA	Hydroxymethylglutaryl-coenzyme A
Ig G,A,M,E	Immunoglobulin G,A,M, E
ACEI	Angiotensin converting enzyme inhibitors
MDA	Malonyldialdehyde
GSH	Reduced glutathione
GSSH	Oxidized glutathione

Cat	Catalase
SOD	Superoxide dismutase
NAG	N-acetyl-beta-D-glucosaminidase
β_2-M	Beta2-microglobulin
ND	Not detected
ATP	Adenosine triphosphate
A,B-NAG	2 major forms of NAG
I₁,I₂-NAG	Intermediate forms of NAG
GFR	Glomerular filtration rate
P-NAG	Form of NAG during pregnancy
C-NAG	Form of NAG present in human brain
S-NAG	Form of NAG present in serum of patient with Sandhoff's disease
As	Serum form of human NAG
At	Human NAG of tubular origin
NANA	N-acetyl-neuramic-acid
ESWL	Extracorporeal shock wave lithotripsy
UTI	Urinary tract infection
URTI	Upper respiratory tract infection
EDTA	Ethylene diamine tetra acetic acid
IV	Intra venous
UPE	Urinary protein excretion
ISKDC	International study of kidney disease in children
BMI	Body mass index
LMW	Low molecular weight

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REVIEW OF RESEARCH

Introduction and Aim of the work

The nephrotic syndrome results from proteinuria greater than 3.5 gm / d and it is characterized by oedema , hyperlipidemia , hypoproteinemia and other metabolic disorders . In addition to primary (idiopathic) glomerular diseases , the nephrotic syndrome may be secondary to a large number of identifiable disease states . Despite the differences in these causes , the loss of substantial amounts of protein in the urine results in a shared set of abnormalities that define the nephrotic syndrome. The great majority of nephrotic syndrome is steroid sensitive nephrotic syndrome (SSNS) and minimal lesion is generally found on histologic examination. In contrast , tubular lesions are more frequent in steroid resistant nephrotic syndrome (SRNS) (**Ruth et al ., 2005**) .

In kidney , N-acetyl-beta-D-glucosaminidase (NAG) and β_2 -microglobulin (β_2 M) are thought to be specific markers for tubular dysfunction consequent to chronic interstitial renal disease , including acute interstitial nephritis , drug nephrotoxicity , reflux nephropathy , chronic pyelonephritis , transplant rejection , cyclosporin toxicity and idiopathic NS (**Valles et al ., 2000**) .