RENAL SIZE AND FUNCTION IN FOLLOW UP OF WILMS' TUMOUR IN EGYPTIAN CHILDREN

THESIS

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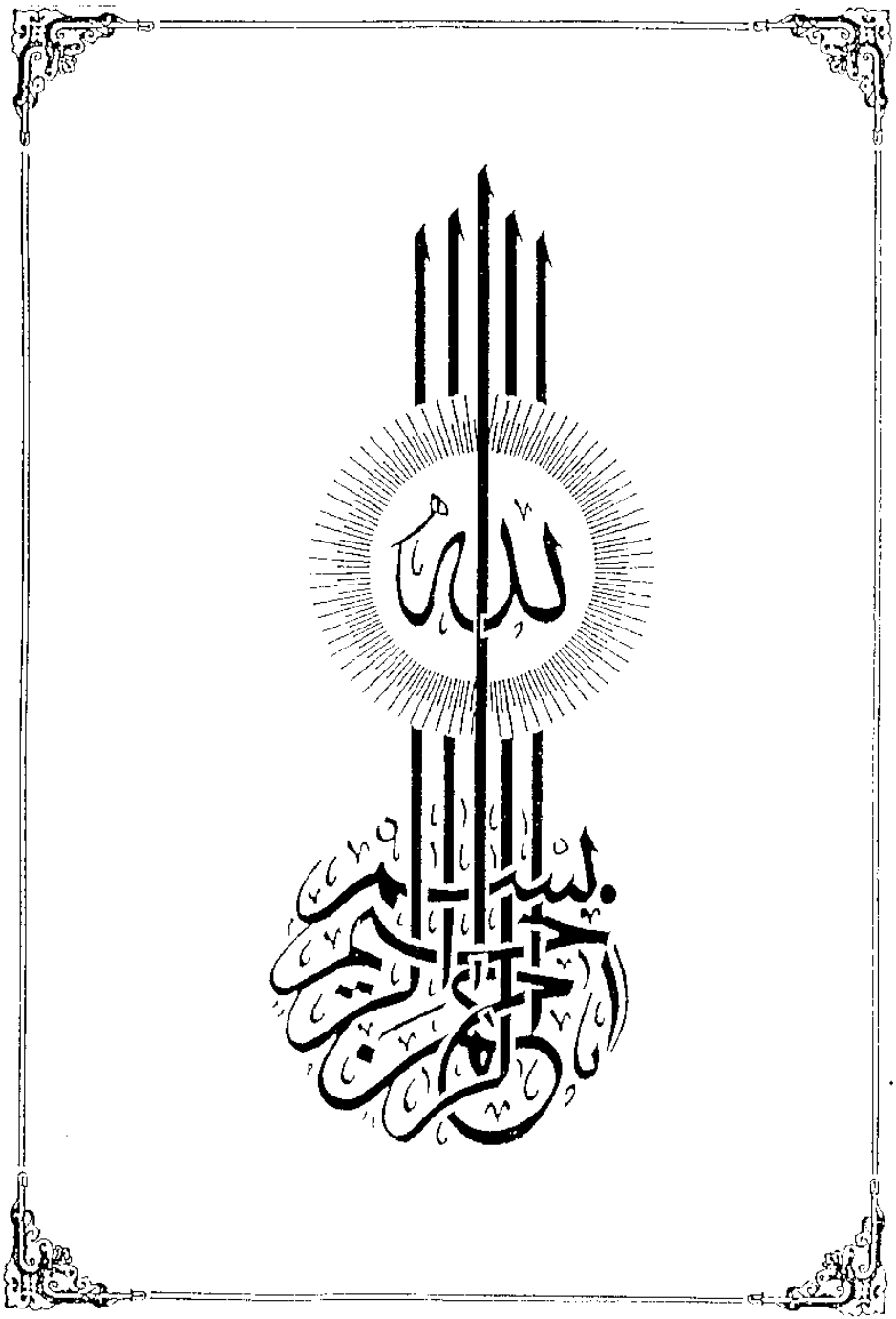
بسم الله الرحمن الرحيم

قالوا سبحانك لا علم لنا إلا ما علمتنا
إنك أنت العليم الحكيم

صدق الله العظيم
« سورة البقرة - آية ٣٢ »



To ...

My parents

With love and affection.

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CONTENTS

LIST OF ABBREVIATIONS

ADR	Adriamycin
AMD	Actinomycin-D
BMRTC	Bone metastasizing renal tumor of childhood
CCSK	Clear cell sarcoma of the kidney
CT	Computerized tomography
DBP	Diastolic blood pressure
ECF	Extracellular fluid
FH	Favorable histology
MRI	Magnetic resonance imaging
NWTS	National Wilms' Tumor Study
RTK	Rhabdoid tumor of the kidney
SBP	Systolic blood pressure
SIOP	International Society of Pediatric Oncology
UH	Unfavorable histology
US	Ultrasound
VCR	Vincristine

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Introduction

INTRODUCTION

Wilms' tumor is the most common malignant renal tumor in children and adolescents. The incidence of Wilms' tumor remains remarkably constant at approximately 500 new cases reported each year in the U.S.A. (*Mesrobian,* 1988).

Wilms' tumor is the paradigm for multimodal treatment of pediatric malignant solid tumor. Developments in surgical techniques and postoperative care, the recognition of the sensitivity of Wilms' tumor to chemotherapeutic agents and irradiation led to a dramatic change in the prognosis for most patients (*Green et al.,* 1991).

Although a high rate of cure has been achieved in Wilms' tumor, there is little information on the growth and function of the remaining kidney. The functional compensation of increased perfusion of residual nephrons after nephrectomy may present deleterious, maladaptive stresses to those surviving nephrons and lead to their ultimate destruction due to hyperfiltration injury.

Focal segmental glomerulosclerosis with renal failure was reported in patients treated for Wilms' tumor (*Hostetter,* 1984). These findings, if substantial, would have implication for the design of new treatment protocols and long-term follow up strategies.

Aim of the Work

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The aim of the current study is to investigate late sequelae of the intensive treatment of unilateral Wilms' tumor on the size and function of a single kidney and the effect on the blood picture and bodily growth of these individuals and to compare these results with a group of individuals of comparable age.

Review of Literature