Surgical Complications of Renal Transplantation

Essay

Submitted for partial Fulfillment
Of Master Degree In Urology

By
Abdelrhman Ahmed Swify
M.B.B.CH.
Faculty of Medicine, Assiut University
2003

Supervised By

Prof.Dr.Abdel Hamid Abdelkader Youssef
Profssor Of Uorology
Faculty Of Medicine-Ain- Shms University

Dr.Mohammed Mohammed Yassen
Lecturer Of Urology
Faculty Of Medicine-Ain- Shams University

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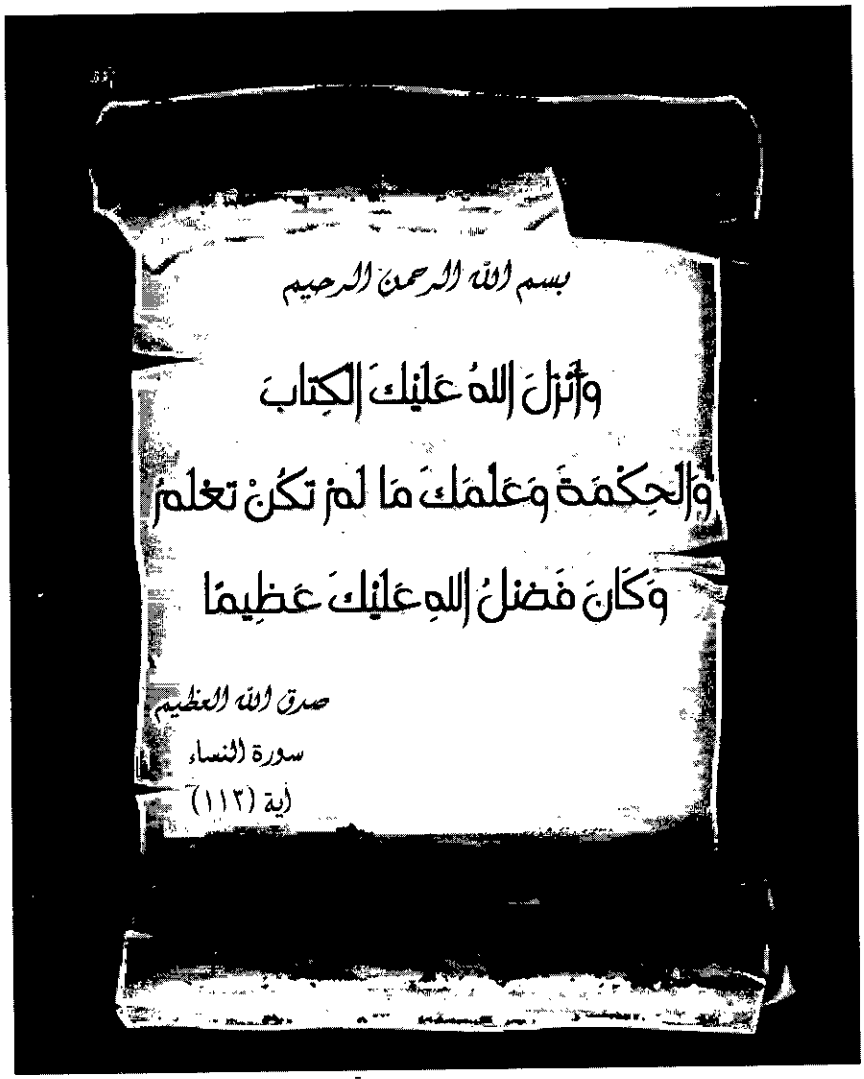
بسم الله الرحمن الرحيم
وأنزل الله عليك الكتاب
والحكمة وعلمك ما لم تكن تعلم
وكان فضل الله عليك عظيما
صدق الله العظيم
سورة النساء
آية (١١٢)

Acknowledgment

First of all, I wish to express my sincere thanks to **ALLAH** *for his care and generosity throughout my life.*

I would like to express my sincere appreciation and my deep gratitude to ***Prof. Dr. Abdel Hamid Abdelkader Youssef*** *Professor of Uorology , Ain-Shams University for his faithful supervision and guidance.*

I am also deeply indebted to ***Dr.Mohammed Mohammed Yassen,*** *Lecturer of Uorology, Ain Shams University for the tremendous effort he has done in the meticulous revision of this work.*

At last, I am indebted for my family

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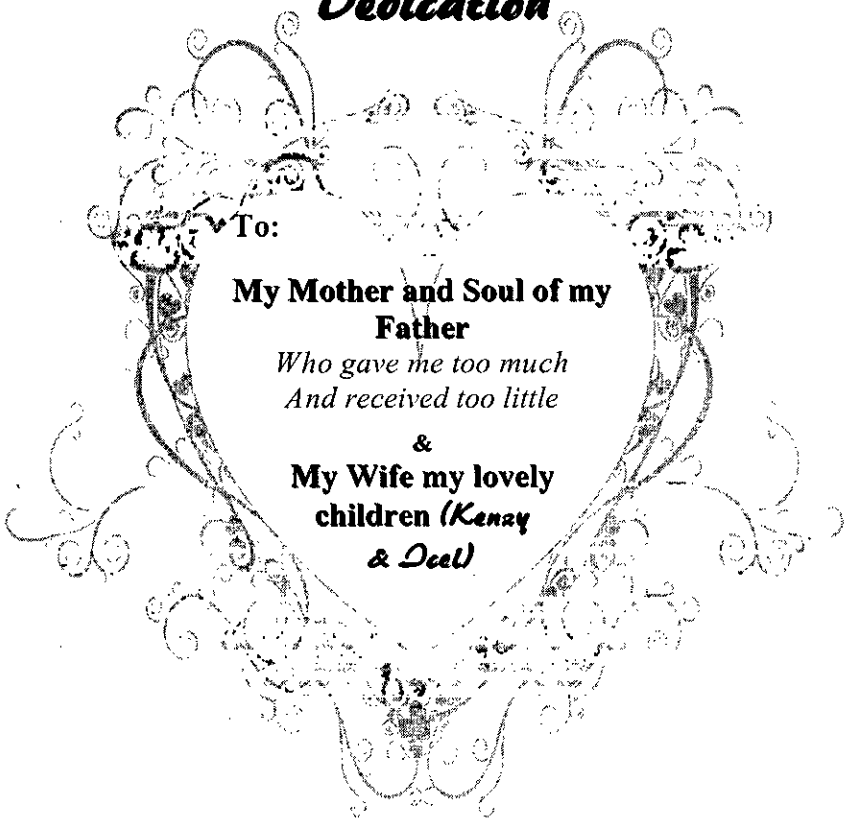
Dedication



To:

My Mother and Soul of my Father

Who gave me too much
And received too little

&

My Wife my lovely children (Kenzy & Dael)

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LIST OF ABBREVIATIONS:

CMV Cytomegalo Virus

CT Computerized Tomography

DR D-related HLA locus in humans

DVT Deep Venous Thrombosis

ECG Electrocardiogram

ESRD End Stage Renal Disease

ESWL Extracorporeal Shockwave Lithotripsy

GFR Glomerular Filtration Rate

HBV Hepatitis B Virus

HIV Human Immunodeficiency Virus

HLA Human Leucocyte Antigen

IgA Immunoglobulin A

IVC Inferior Vena Cava

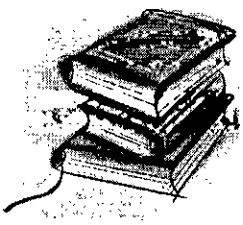
PTA Percutaneous Transluminal Angioplasty

RVT Renal Vein Thrombosis

TRAS Transplant Renal Artery Thrombosis

US Ultrasonography

Introduction & Aim of the Review



Introduction

The kidney remains the most frequent organ transplanted. The first renal transplantation was performed in 1954. A major breakthrough occurred with the release of cyclosporine in 1983; this drug helps to control transplant rejection (1) .

Renal transplantation is considered the treatment of choice for medically suitable patients with chronic and end stage renal disease (ESRD). In carefully selected patients, virtually all causes of chronic renal failure can be treated with transplantation. Some conditions are likely to recur in the transplanted kidney, including immunoglobulin A (IgA) nephropathy, certain glomerulonephritis, oxalosis, and diabetes. Generally, the rate of recurrence is slow enough to justify transplantation. In some patients, kidney transplantation alone is not optimal treatment. Combined kidney and pancreas transplantation is the treatment of choice for patients who have type 1 diabetes and renal failure. Renal tumors (eg, Wilms tumor in children, renal cell carcinoma in adults) can be treated with transplantation. A 2-year disease-free interval before transplantation is strongly advised (2).

Since in most cases the poorly functioning existing kidneys are not removed because this has been shown to increase the rates of surgical morbidities, the kidney is usually placed in a location different from the original kidney (often in the iliac fossa), and as a result it is often necessary to use a different blood supply:The renal artery of the kidney, previously branching from the abdominal aorta in the donor, is often connected to the external iliac artery in

the recipient.The renal vein of the new kidney, previously draining to the inferior vena cava in the donor, is often connected to the external iliac vein in the recipient (3).

Despite improvements in surgical and diagnostic techniques, surgical complications following kidney transplantation remain an important clinical problem that may increase morbidity, hospitalization and costs (4).

Surgical complications after renal transplantation are uncommon. However, if they occur, they may threaten patients or grafts, so prompt diagnosis and intervention is mandatory. Surgical complications may be divided into three groups as vascular, urologic and lymphatic (5).

Aim of the review

The aim of the work is to evaluate surgical complications of renal transplantation, early detection, how to reduce and to correct these complications for both the donor and the recipient.