
شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

**To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%**


# شبكة المعلومات الجامعية

# التوثيق الالكتروني والميكروفيلم


# بعض الوثائق الاصلية تالفة

# بالرسالة صفحات لم ترد بالاصل

# Laparoscopic Live Donor Nephrectomy

# Thesis

Submitted for the partial fulfillment, of the requirements of the M.D


By

**Mahmoud Abd El Hamid ( M.Sc, M.B, B.ch)**

Under the supervision of

**Prof. Dr. Abd El Rehim Hegazy**

*Professor of Urology, Cairo University*

**Prof.Dr. Omar Abd El Razzak**

*Professor of Urology, Cairo University*

**Prof.Dr. Hazem Abo El Fettouh**

*Ass.Prof. of Urology, Cairo University*

**Dr. Mohamed Abd El Rasoul**

*Lecturer of Urology,*

*Cairo University*


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## Abstract

Laparoscopy in urology paralleled, to a large extent, the changes in general surgery. Up until the late 1980s, laparoscopy had limited applications, and then over 24 months, from 1989 through 1990, a wide range of applications were discovered.

**Key word : donor , laparoscopic , nephrectomy**

*To the Soul of my Father*

# *Aknowledgement*

*First for most of all I feel indebted to God, the most kind, and merciful.*

*I would like to express my deep appreciation to Prof.Dr. Abd El Rehim Hegazy, for the time, and effort he devoted for this work.*

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# *List of Common Abbreviations*

| | |
|---|---|
| *ATG* | *Antithymophcyte Globulin* |
| *ATN* | *Acute Tubular Necrosis* |
| *CKD* | *Chronic Kidney Disease* |
| *CsA* | *Cyclosporin* |
| *EBL* | *Estimated Blood Loss* |
| *ESRD* | *End Stage Renal Disease* |
| *GFR* | *Glomerular Filtration Rate* |
| *HLDN* | *Hand Assissted Laparoscopic Donor Nephrectomy* |
| *IVC* | *Inferior Vena Cava* |
| *Kf* | *Kidney Function* |
| *LDN* | *Laparoscopic Donor Nephrectomy* |
| *ODN* | *Open Donor Nephrectomy* |
| *OT* | *Operative Time* |
| *SCr* | *Serum creatinine* |
| *UNOS* | *United Network of Organ Sharing* |
| *WI* | *Warm Ischemia* |

# *Table of Contents*

# *Introduction*

During the 1980s, laparoscopy entered the field of general surgery, when the French investigators Filipi and Mouret introduced laparoscopic cholecystectomy, **(Davis and Filipi, 1995)**. By the 1990s laparoscopic cholecystectomy became the standard of care for most of cases necessitating surgical removal of the gall bladder.

Laparoscopy in urology paralleled, to a large extent, the changes in general surgery. Up until the late 1980s, laparoscopy had limited applications, and then over 24 months, from 1989 through 1990, a wide range of applications were discovered. This included: laparoscopic lymphadenectomy, laparoscopic nephrectomy, and laparoscopic varicocelectomy, **(Sanchez-de-Badajoz et al, 1994, Clayman et al, 1991, Mc Cullough et al, 1991)**. As in general surgery, laparoscopy took urology by storm. Numerous courses, books, and articles soon appeared on the scene to guide urologists into the laparoscopic realm.

Laparoscopic living donor nephrectomy was first performed in an animal model in 1994, **(Gill et al, 1994)**. The first human living donor nephrectomy was performed in 1995, **(Ratner et al, 1995)**, since then, many transplant centers have adopted this technique, **(Jacobs et al, 2004, Su et al, 2004)**. Other centers had concerns regarding donor safety and graft survival, **(Knoepp et al, 1999)**. Investigators also questioned the ability of laparoscopic nephrectomy to procure a kidney with adequate vascular length for transplantation.

# *Aim of Work*

To compare open, & laparoscopic live donor nephrectomy, regarding operative time, and complications, and the early postoperative course until discharge from the hospital. The early postoperative kidney function of the recipient will also be evaluated.

# CHAPTER 1

# ANATOMY

## Anterior Abdominal Wall

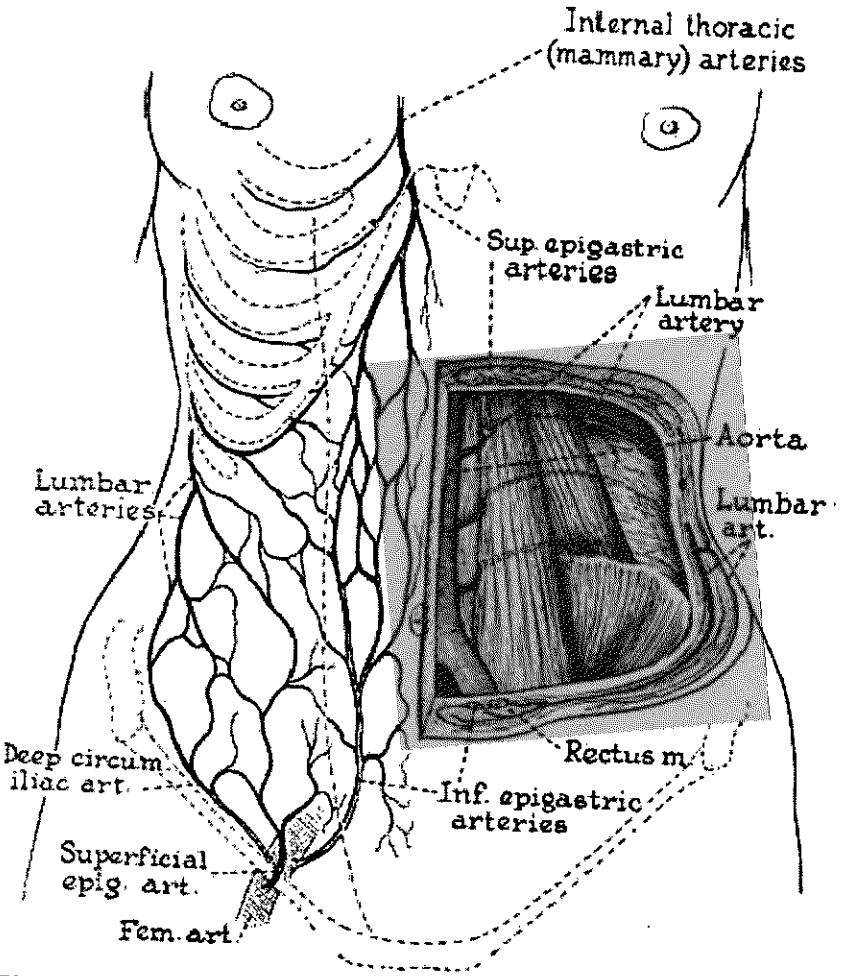


Figure 1-1, showing layers of anterior abdominal wall (Faiz & Moffat,2002)

**Skin**

This is innervated by the anterior primary rami of the lower six thoracic intercostal and iliohypogastric (L1) nerves.

**Fascia**

There is no deep fascia in the anterior abdominal wall. The superficial fascia is composed of two layers:

• Superficial fatty layer (*Camper's fascia*), which is continuous with the superficial fat over the rest of the body.

• Deep fibrous (membranous) layer (*Scarpa's fascia*) which fades above and laterally but below blends with the fascia lata of the thigh just below the inguinal ligament and extends into: the penis as a tubular sheath; the wall of the scrotum; and the perineum where it fuses with the perineal body and posterior margin of the perineal membrane. **(Faiz & Moffat, 2002)**

It fuses laterally with the pubic arch. The fibrous fascial layer is referred to as (*Colles' fascia)* in the perineum.

**Muscles of the anterior abdominal wall**

These comprise: *external oblique*, *internal oblique*, *transversus abdominis*, *rectus abdominis* and *pyramidalis*.

As in the intercostal space, the neurovascular structures pass in the neurovascular plane between internal oblique and transversus muscle layers. **(Faiz & Moffat, 2002)**

**The Rectus sheath**

The rectus sheath encloses the rectus muscles. It contains also the superior and inferior epigastric vessels and anterior rami of the lower six thoracic nerves. **(Faiz & Moffat, 2002)**

The sheath is made up from the aponeuroses of the muscles of the anterior abdominal wall. The *linea Alba* is the fusion of the aponeuroses in the midline. Throughout the major part of the length of the rectus the aponeuroses of external oblique and the anterior layer of internal oblique lie in front of the muscle and the posterior layer of internal oblique and transversus behind. **(Faiz & Moffat, 2002)**