



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على 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 الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

Management of Huge Inguinal hernia
Thesis

Submitted for partial fulfillment of the M.D. degree in General Surgery

By

Hosni Shams El Din Mahgoub

M.B.Bch.

Alazh. Faculty Of Medicine

M.Sc.G.Surgery

Benha Faculty of Medicine

Supervised By



Prof. Dr. Hamed Rashad Mosallam

Professor of General Surgery

Benha Faculty of Medicine

Dr. Abdu Hamed Gafar

Professor of General Surgery

Benha Faculty of Medicine

Dr. Essam .Sadek Radwan

Professor of General Surgery

Benha Faculty of Medicine

BENHA UNIVERSITY

BENHA FACULTY OF MEDICINE

2006

Handwritten signature or initials.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(وَمَا أُوتِيتُمْ مِنَ الْعِلْمِ إِلَّا قَلِيلًا)

صَبْرًا وَاللَّهُ الْعَظِيمُ

(الإسراء: من الآية ٨٥)

Acknowledgement

At the first of all gratitude is due to *Allah* almighty for blessing this work, until it has reached its end, as part of its generous help thought my life.

I can hardly find the words to express my gratitude to Professor. **Dr. *Hamed Rashad*** Professor of General Surgery *Faculty of Medicine*, Benha University, who has always provided me with fatherly guidance, his kind supervision and constructive criticism thought the whole work .

I'm also thinking a to Professor. **Dr. *Abdu Gafar*** Professor of General Surgery *Faculty of Medicine*, University. for his guidance, continuous assistance, valuable suggestions and supervised my work .

I'm also deeply in debated to Professor. **Dr. *Esam Sadek Radwan***, Professor of General Surgery *Faculty of Medicine*, Benha University. For his kind help guidance ,continuous encouragement ,useful advices, tremendous effort and close supervision and support all through my work to bring this work to light .

My best wishes all members of surgical department of Benha University Hospital For all what they taught me and for their support.

GOD BLESS THEM ALL

Contents

TOPIC	Page
INTRODUCTION	1
AIM OF THE WORK	5
REVIEW OF LITERATURE	6
Anatomy of anterior abdominal wall and inguinal region	6
Physiology and biology of inguinal hernia	45
Pathological features of inguinal hernia	49
Clinical manifestations and diagnosis	59
Different techniques of preperitoneal management of the huge inguinal hernia	77
PATIENTS AND METHODS	97
RESULTS	119
DISCUSSION	127
SUMMARY & CONCLUSION	135
REFERENCES	138
ARABIC SUMMARY	

Introduction

Introduction



Introduction

In patients with Giant inguinoscrotal hernias, most of the intestine together with the omentum may come to reside in the hernial sac rather in the abdominal cavity. When the viscera are returned to the abdominal cavity and the hernial defect is repaired the resulting increased tension in the abdominal cavity may impair diaphragmatic motion and compromise respiratory functions. Venous return from the lower limb may also be impaired because of compression of the vena cava. Inguinal herniation, presenting as a bulge in the groin, the earliest record reference to hernias appears in the Egyptian Papyrus of Ebers (circa 1552 B.C.). according to the monumental illustrated history of medicine (*Lyons AS. Petrucelli RJ 1987*).

Hernias are responsible for considerable economic loss to the patient, the family and the Nation (*Abdel-Moti, 2000*).

Giant inguinal hernia may be defined as those that extend below the midpoint of the inner thigh when the patient is standing .These patients have difficulty walking and voiding ,and specialized under clothing is required to support the cumbersome weight of such amass. In addition the mass may become excoriated and secondarily infected. Besides the greatly thickened and enlarged scrotum, the likely features of these hernias are previous repairs and recurrences of hernia. usually direct hernia and contents that may include the bladder .patients may have been denied surgical repair of these hernias for fear of respiratory difficulty after replacement of the hernia contents back into the abdominal cavity .Repair of these hernias may be under taken utilizing the preperitoneal approach, preoperative pneumoperitoneum or prosthetic material to ensure a strong repair and lessening the likelihood of recurrences. Surgical reduction of hernia usually takes little account of the scrotal enlargement because reduction of the contents and hydrocelectomy are generally followed by shrinking of the elastic scrotum .The thickened dartos muscle contracts to surround

the testes and shrinks so that excessive scrotum is seldom problem .Occasionally, in patients with large hernias this shrinkage is insufficient ,and it is often necessary to insert suction drains to eliminate dead space and reduce seroma .Giant inguinal hernia is associated with stretching of the scrotal skin and dartos muscle and subsequent thickening of the scrotal wall. thus the scrotum may be unable to shrink after content reduction. Accompanying this is elongation of the spermatic cord and testicular displacement. in effect after surgical repair ,the large scrotal sac needs to be reduced and reconstructed to accommodate the testes and elongated spermatic cord (*Griffith CA 2001*) .

Why do human beings develop Groin hernias?.

Most abdominal herniaation arises in the groin (from the Latin word *inguen*),so named because it is transition zone between the abdomen and thigh .All groin hernias emerge through the myopectineal orifice ,the opening in the lower abdominal wall bounded by the transversus abdominis arch and the superior pubic ramus.It allows the passage of blood vessels, nerves, lymphatics, muscles, tendons, fasciae, and the vas deferens in and out of the hind limb and scrotum .The upper and lower halves are divided by the inguinal ligament.Inguinal protrusions present anteriorly,femoral posteriorly .Historically ,hernial causation was attributed to a mechanic disparity between visceral pressure and the resistance of the musculature (*Cooper AP 1999*) .

Not only identified the transversals fascia, he listed factors that increase intraabdominal pressure. Now, we would add, with an increasingly aged population, prostatism. Strength of the abdominal wall was considered to be diminished by congenital deficiency, debility, or aging .rupture of the peritoneum or abdominal musculature was disapproved as a factor by dissection and the fact that trauma, unless massive, did not result in herniation .Inguinal herniation :During most of

the 19th century repair of these hernias differed little from that described now. The main indications remained pain, incarceration, and strangulation unresponsive to taxis.

The frequency of protrusions in the groin was attributed to the absence of the posterior rectus sheath below the arcuate line and gravitational stress brought about by the erect posture. Prior to Cooper's discovery of the transversalis fascia, protection against inguinal herniation was considered to depend on reflex contraction of the abdominal musculature in response to coughing, straining, and lifting. As muscular power diminishes with age or disease, i.e., neuropathy, wasting, etc., these protective mechanisms fail, leaving the transversalis fascia at risk (*Cooper AP 1999*).

Anatomy of the groin : A view from the surgeon the urogenital fatty-fascial compartment in the groin. In schematic parasagittal sections, these layers are illustrated as composing the middle of the groin in flat position to each other: skin, oblique and transversus abdominis, peritoneum, this arrangement is true only in the case of an empty bladder. In a living person, the innermost layer may as well be the wall of the bladder. Numerous bladder injuries during hernia repair bear witness to the fact that a full bladder transforms the Hesselbach triangle into a huge extraperitoneal compartment. When the bladder is filled up with saline during a transabdominal laparoscopic (TAPP) hernia repair the peritoneal protrusion of a direct hernia becomes separated from transversalis fascia by the interposition of the bladder. The peritoneal space which is reduced to a flat layer, sometimes even omitted, in schematic parasagittal illustrations, physiologically deeper than the rest of the abdominal wall. The preperitoneal space has indefinite lateral and

posterior margins because it is continuous with the rest of the extraperitoneal and retroperitoneal tissues (*Condon RE 2000*) .

However the periperitoneal space represents a well defined compartment in front of the bladder, the prevesical space, the configuration of the prevesical space can be demonstrated by CT scan of extraperitoneal fluid accumulations. The prevesical space extends laterally to the inferior epigastric artery and posteriorly on both sides of the bladder whereby it assumes the forms of a molar tooth on horizontal sections. vertically, it has the form of an inverted V with the apex near the umbilicus (*Condon RE 2000*) .

The important of hernias is suggested by the fact that one man in five and one women in 50 eventually has a hernia repair and hysterectomy in addition to appendectomy are the most frequent performed operations. Inguinal hernioplasty is subjected to many complications, some of them are common to all operations and others are specific as ischemic orchitis and testicular atrophy (*Wantz.E 1998*).

Aim of the Work

Aim of the Work

