



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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%

بعض الوثائق
الأصلية تالفه

بالرسالة صفحات
لم ترد بالأصل

LAPAROSCOPIC CARDIOMYOTOMY FOR TREATMENT OF ACHALASIA OF THE CARDIA

THESIS

*Submitted in Partial Fulfillment of the Master Degree in
General Surgery*

By
Bahaa El-Din Ali Khaled
M.B., B.Ch.

Supervisors

Prof. Dr. Adel Ahmed Hosni

*Professor of General Surgery
Faculty of Medicine
Cairo University*

Prof. Dr. Faheem Aly El-Bassiony

*Professor of General Surgery
Faculty of Medicine
Cairo University*

Dr. Mohamed Said El-Marzouky

*Lecturer of General Surgery
Faculty of Medicine
Cairo University*

*Faculty of Medicine
Cairo University*

2005

جامعة القاهرة / كلية الطب
الدراسات العليا

محضر

اجتماع لجنة الحكم على الرسالة المقدمة من
الطبيب / إيهاء السيد علي قبال
توطئة للحصول على درجة الماجستير / الدكتوراه
في الجراحة العامة

=====

تحت عنوان : باللغة الانجليزية : Laparoscopic Cardiomyotomy for treatment of achalasia of The Cardia

: باللغة العربية : قطع عضلة ألياف المريء باستخدام المنظار الجراحي لعلاج داء انقباض فتحة الفؤاد

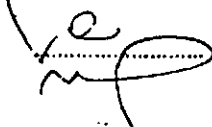
- بناء على موافقة الجامعة بتاريخ / / ٢٠٠٠ تم تشكيل لجنة الفحص والمناقشة
للمرسلة المذكورة أعلاه على النحو التالي :-
١. الأستاذ الدكتور / عبدالمجيد بسيس عن المشرفين
 ٢. د. مصطفى عبد الرحمن / ممتحن داخلي
 ٣. أ. حيدر كبريا / ممتحن خارجي

بعد فحص الرسالة بواسطة كل عضو منفردا وكتابة تقارير منفردة لكل منهم انعقدت اللجنة
مجتمعة في يوم الأربعاء بتاريخ ٩ / ١١ / ٢٠٠٠ بقسم مدرج
بكلية الطب - جامعة القاهرة وذلك لمناقشة الطالب في جلسة علنية في موضوع الرسالة والنتائج
التي توصل إليها وكذلك الأسس العلمية التي قام عليها البحث .

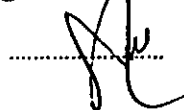
قرار اللجنة :

بول الرسالة

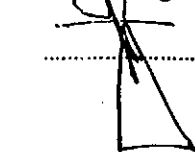
الممتحن الخارجي



الممتحن الداخلي



توقيعات أعضاء اللجنة :-
المشرف الممتحن



عصام

Acknowledgement

Before all I would like to express my deep thanks to ALLAH without his great blessings, I would never accomplish this work.

I wish to express my sincere and deep appreciations to Prof. Adel Ahmed Hosni, Professor of General Surgery, Cairo University, for his continuous guidance, parental support and constructive criticism through the work.

Also, my profound gratitude to Prof. Faheem Aly El-Bassiony, Professor of General Surgery, Cairo University, without his sincere help, this work could not have been accomplished and special thanks for his kind supervision and support.

I am deeply indebted to Dr. Mohamed Said El-Marzouky, Lecturer of General Surgery, Cairo University, for his continuous, great efforts to accomplish this work from the beginning to the end.

I wish to express my deep appreciation to all the staff of General surgery department in Cairo University, who offered me great help to finish this work.

I wish to express my thanks to all those who participated in typing and processing this work.

ABSTRACT

This study was conducted on 10 patients with achalasia presented to Kasr El Ini hospital during the time period of the study (24 months).

They were scheduled for laparoscopic esophagocardiomyotomy & modified Dor anterior fundoplication (as an antireflux procedure).

The procedure proved to be safe, effective and feasible for treatment of achalasia of the cardia.

KEY WORDS

Achalasia – Laparoscopic – Cardiomyotomy – Treatment – Cardia.

Contents

	<i>Page</i>
1- Introduction	1
2- Review of literature	3
• Embryology of the esophagus	3
• Anatomy of the esophagus	5
• Physiology of the esophagus	35
• Clinical Assessment of esophageal diseases	48
• Motility disorders of the esophagus	53
• Achalasia	75
3- Patients and methods	138
4- Results	148
5- Discussion	157
6- Conclusion	168
7- Summary	169
8- References	170

ABBREVIATIONS

Abbreviation	The word
UES	Upper esophageal sphincter
LES	Lower esophageal sphincter
GE	Gastroesophageal junction
WS	Wet swallows
HAPC	High amplitude peristaltic contractions
DES	Diffuse esophageal spasm

TABLE LIST

Table Number	Page Number
1	47
2	55
3	56
4	77
5	79
6	81
7	
8	94
9	95
10	102
11	149
12	149
13	150
14	150
15	151
16	152
17	153
18	154
19	156
20	156

Introduction

Introduction

Achalasia is perhaps the most common esophageal motility disorder, with an incidence of 0.4 to 1.1 per 100,000 populations. (Mayberry et al., 1985). In this disorder there is aperistalsis of the esophageal body and failure of the lower esophageal (LES) to completely relax after swallowing.

Different modalities for treatment of achalasia were widely investigated including, pharmacologic therapy, pneumatic dilatation, endoscopic botulinum toxin injection and surgical myotomy. Cardiomyotomy for achalasia was first reported in 1913 by Ernest Heller. (Heller, 1913).

His original technique was to perform parallel myotomies extending for 8 cm or more along the distal esophagus and proximal gastric cardia. A few years later both Groeneveldt and Zaaier described a single anterior esophagocardiomyotomy that is still known as a Heller myotomy and remains the procedure of choice for more than 85 years later. (and Groeneveldt, 1918 and Zaaier, 1923).

As myotomy became more popular in North America and Britain, most surgeons adopted a left thoracotomy technique for myotomy, believing that this approach minimizing the interference with the normal anti-reflux mechanism maintained by the LES. However, in Europe and South America, most surgeons advocated an abdominal approach for the myotomy along with concomitant anti-reflux procedure. (Jamieson et al., 1983).

The decision whether to combine an anti-reflux procedure with a myotomy has been one of the most controversial issues concerning the surgical treatment of achalasia for several decades.

Although short esophageal myotomy (<8 cm) is the usual treatment for achalasia, various modifications have been reported in the open and minimally invasive literature. These include (a) division of the LES musculature with sparing the esophagogastric junction, (b) division of the lower 5 cm of the esophageal musculature and continuing through the gastroesophageal junction and onto the proximal 1 cm of the stomach, (c) division of the lower 5 cm of the esophageal musculature and continuing for several centimeters onto the gastric cardia, and (d) long esophageal myotomy (>8 cm) continuing distally onto the proximal gastric cardia. (Hunter and Richardson, 1997).

Soon after reported success of laparoscopic anti-reflux surgery, many clinicians began applying minimally invasive approaches to the treatment of achalasia. (Pellegrino et al., 1992).

The recent trend has been for surgeons to use laparoscopic approach and to add routinely anti-reflux procedure. Now it is established that laparoscopic cardiomyotomy for the treatment of achalasia can be performed safely. (Lai et al., 2002).

In North America and in Europe, the Dor anterior fundoplication has been very popular with many minimally invasive surgeons because it was fairly easy to perform and has the advantage of covering the exposed esophageal mucosa. (Ackroyd et al., 2001).

Evidence has suggested better results combining myotomy with the Toupet posterior fundoplication despite the greater complexity of this anti-reflux procedure. (Raiser et al., 1996).

Aim of the work

The aim of this study is to evaluate the feasibility, effectiveness and safety of laparoscopic cardiomyotomy in the treatment of achalasia of the cardia.