



شبكة المعلومات الجامعية  
التوثيق الإلكتروني والميكرو فيلم

# بسم الله الرحمن الرحيم



**HANAA ALY**



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# شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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# جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

## قسم

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علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



**HANAA ALY**



**Dysphagia After Anti-Reflux Surgery; a comparative study between laparoscopic Nissen fundoplication and its Rossetti's modification**

*Thesis*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالَ

لَسْبِقَانِكَ لَا أَعْلَمُ لَنَا  
إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ  
الْعَلِيمُ الْعَظِيمُ

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## List of Abbreviations

Abb.	Full term
CCK .....	Cholecystokinin
CD.....	Crural diaphragm
CE.....	Conformité Européene
D2 .....	Dopamine
EAES .....	European Association for Endoscopic Surgery
EGJ.....	Esophagogastric junction
EPT.....	Esophageal pressure topography
GEJ.....	Gastro-esophageal junction
GERD .....	Gastroesophageal reflux disease
GERD-HRQOL....	Gastro Esophageal Reflux Disease-Health Related Quality Of Life
<i>HRM</i> .....	<i>High-Resolution Manometry</i>
LCS.....	Laparoscopic coagulating shears
LES.....	Lower esophageal sphincter
LNF .....	Laparoscopic Nissen fundoplication
MIS .....	Minimally invasive surgery
MRS .....	Multiple rapid swallows
NBI .....	Narrow-band imaging
NO .....	Nitric oxide
PD.....	Persistent dysphagia
PPIs .....	Proton pump inhibitors
QOL .....	Quality of Life
SCJ .....	Squamocolumnar junction
UES .....	Upper esophageal sphincter

# INTRODUCTION

Gastroesophageal reflux disease (GERD) is increasingly prevalent and costly, and it may affect as much as 20% of the western population (*Patti, 2016*).

The pathophysiology of GERD is not due to acid overproduction but rather mechanical dysfunction centered around the lower esophageal sphincter (LES). Furthermore, the mainstay of GERD treatment, proton pump inhibitors (PPIs), have come under scrutiny because of worrisome side effects (*Yu et al., 2011*).

Clinical predictors of response to antireflux surgery are lacking; thus, a thorough preoperative evaluation is needed for appropriate patient selection to ensure the best clinical outcome. Before surgical intervention, patients must undergo testing to ensure objective evidence of GERD. Patients may undergo anatomic and/or physiologic testing (*Ip et al., 2009*).

Dr Rudolf Nissen (1896-1981) described the first fundoplication in the 1950s for treatment of severe reflux esophagitis. His original procedure used a 360° wrap of the fundus of the stomach around the esophagus by plication of both the anterior and posterior walls of the gastric fundus around the lesser curvature. Although the standard Nissen fundoplication has been modified many times, laparoscopic

Nissen fundoplication is now considered the standard surgical approach for treatment of GERD (*Salminen, 2012*).

Laparoscopic Nissen fundoplication may have advantages over the traditional open approach, including improved cosmesis, reduced morbidity, shorter hospital stay, decreased respiratory complications, and faster recovery (*Peters et al., 2009*).

Laparoscopic Nissen-Rossetti Fundoplication involves performing the fundic wrap after ensuring an adequate length of intraabdominal esophagus, approximation of the crural hiatus and accentuation of the angle of His. This differs from the usual Nissen Fundoplication by not having to divide the short gastric vessels along the gastro-splenic ligament. Thus the procedure has an added advantage of decreasing operating time and minimizing intraoperative and postoperative blood loss (*Bharatam et al., 2014*).

The aspect of the standard Nissen fundoplication – dividing the short gastric vessels- can be quite challenging, although the introduction of the laparoscopic coagulating shears (LCS), or harmonic scalpel, has facilitated this process. Some surgeons argue that division of the short gastric vessels is not needed to create a loose fundoplication, others claim that not doing so can lead to a more restrictive wrap and thus increased postoperative dysphagia (*Leggett et al., 2000*).