بسم الله الرحمن الرحيم

MONA MAGHRABY

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

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شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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MONA MAGHRABY

Comparison between Outcome after Laparoscopic Heller's Myotomy with Dor Fundoplication in Patients Who Had or Had Not Undergone Previous Trials of Endoscopic Balloon Dilatation for Cardiac Achalasia

Thesis

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By

Fadi Hani Wahba Mikhail
M. B. B. Ch- M.S. in General Surgery, Ain Shams University

Under supervision of

Prof. Dr. Khaled Abdallah El Fiky
Professor of General Surgery
Faculty of Medicine – Ain Shams University

Prof. Dr. Hisham Abdel Raouf El Akkad
Professor of Head of upper GIT Surgery Unit
Faculty of Medicine - Ain Shams University

Prof. Dr. Mohamed Mahfouz Mohamed
Professor of General Surgery
Faculty of Medicine - Ain Shams University

Assist. Prof. Dr. Wadie Boshra Gerges
Assistant Professor of General Surgery
Faculty of Medicine - Ain Shams University

Faculty of Medicine - Ain Shams University
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بسم الله الرحمن الرحيم

وَقُل رَّبِّ
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صَدَقَ اللهُ العَظِيم

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الآية (١١٤)

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Fadi Hani Wahba Mikhail

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List of Abbreviations

Abb.	Full term
EUS	*Endoscopic ultrasound*
HRM	*High Resolution Manometry*
IRP	*Integrated relaxation pressure*
LES	*Lower esophageal sphincter*
LHD	*Laparoscopic Heller– Dor surgery*
LHM	*Laparoscopic Heller's myotomy*
LHM+DF	*Laparoscopic Heller's cardiomyotomy with Dor fundoplication*
PBDs	*Pneumatic balloon dilatations*
PD	*Pneumatic dilation*
POEM	*Per Oral Esophageal Myotomy*
QOL	*Quality of life*
VATS	*Video-assisted thorascopic surgery*

INTRODUCTION

Achalasia is a primary esophageal motor disorder of unknown aetiology. Its clinical presentation is characterized by progressive dysphagia, thoracic pain and the regurgitation of partially digested food, having an important secondary impact on the nutritional status of the patients. High-resolution manometry is the criterion standard for making the diagnosis ***(Etchegaray-Dondé et al., 2018)***.

Achalasia is characterized manometrically by insufficient relaxation of the lower esophageal sphincter (LES) and loss of esophageal peristalsis. Radiographically it shows aperistalsis, esophageal dilation with minimal LES opening, "bird- beak" appearance and poor emptying of barium. Upon endoscopy, there is dilated esophagus with retained saliva, liquid and undigested food particles in the absence of mucosal stricturing or tumor. Achalasia occurs equally in both genders with prevalence that ranges up to 1 per 10,000 persons ***(Ates and Vaezi, 2015)***.

Complications of achalasia include: esophageal perforation, recurrence, gastroesophageal reflux disease, bloating and potential cancer risk ***(Renteln et al., 2012)***.

Achalasia is a chronic condition without cure. Current treatment options in achalasia are aimed at reducing the hypertonicity of the LES by pharmacologic, endoscopic or surgical means. No intervention significantly affects esophageal

peristalsis, and despite therapeutic interventions, the LES hypertonicity returns over time, requiring repeated interventions ***(Patel et al., 2016)***.

Pneumatic dilatation and Heller's myotomy are two recognized treatment options that involve disruption of the lower esophageal sphincter to improve esophageal emptying and relieve dysphagia ***(Gray et al., 2017)***.

Pneumatic endoscopic dilatation (PD) uses air pressures to intraluminally dilate and disrupt the circular muscle fibers of the LES. Pneumatic endoscopic dilatation of the LES is considered the most effective nonsurgical treatment for achalasia ***(Gupta et al., 2017)***.

The goal of surgery is to alleviate the distal esophageal obstruction by division of the circular muscle fibers comprising the LES. Myotomy can be accomplished via laparotomy, thoracotomy, and since the early 1990s, laparoscopically and thoracoscopically ***(Stefanidis et al., 2011)***.

There is some debate about whether preoperative balloon dilation influences the outcomes of laparoscopic Heller– Dor surgery (LHD), with no consensus opinion yet ***(Tsuboi et al., 2018)***.

Aim of the Work

The aim of this study is to assess the effect of prior endoscopic balloon dilatation on the outcome of laparoscopic Heller's cardiomyotomy with Dor fundoplication for treatment of cardiac achalasia.

Chapter 1

ACHALASIA: DEFINITION, EPIDEMIOLOGY, AETIOLOGY AND PATHOGENESIS

Definition

Achalasia is a primary oesophageal motility disorder resulting from progressive degeneration of ganglion cells in the myenteric plexus in the esophageal wall, leading to failure of relaxation of the lower esophageal sphincter, accompanied by a loss of peristalsis in the distal esophagus ***(Schlottmann et al., 2018).***

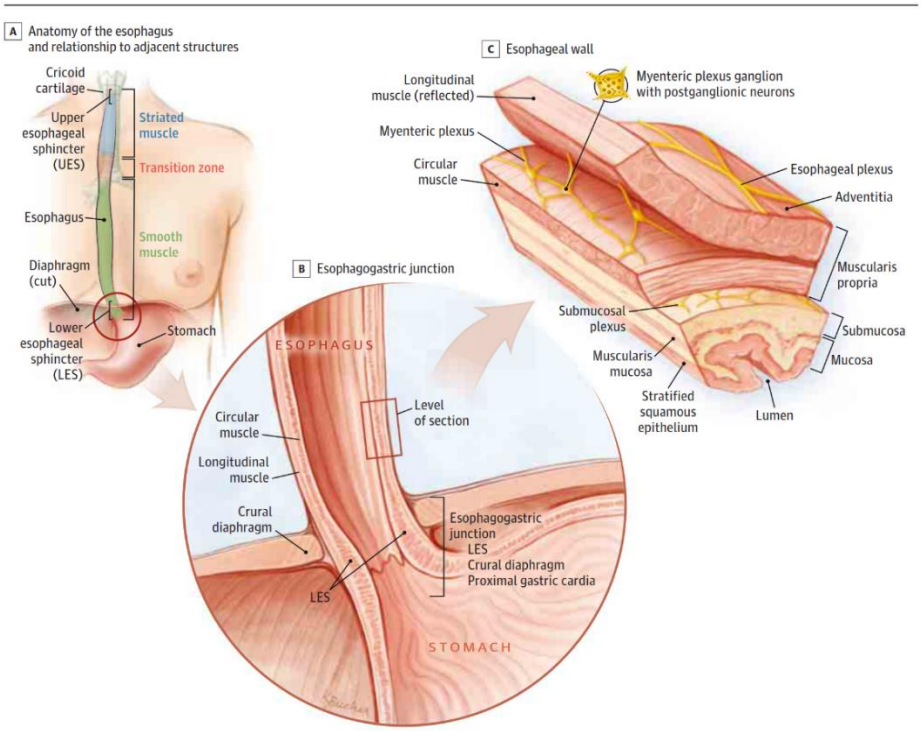

Figure (1): Anatomy and innervation of the esophagus ***(Pandolfino and Gawron, 2015).***