

Faculty of Medicine  
General Surgery department

## RECENT ADVANCES IN MANAGMENT OF CANCER ESOPHAGUS

An essay  
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## DEDICATION



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## الحديث فى تشخيص وعلاج سرطان المرئ

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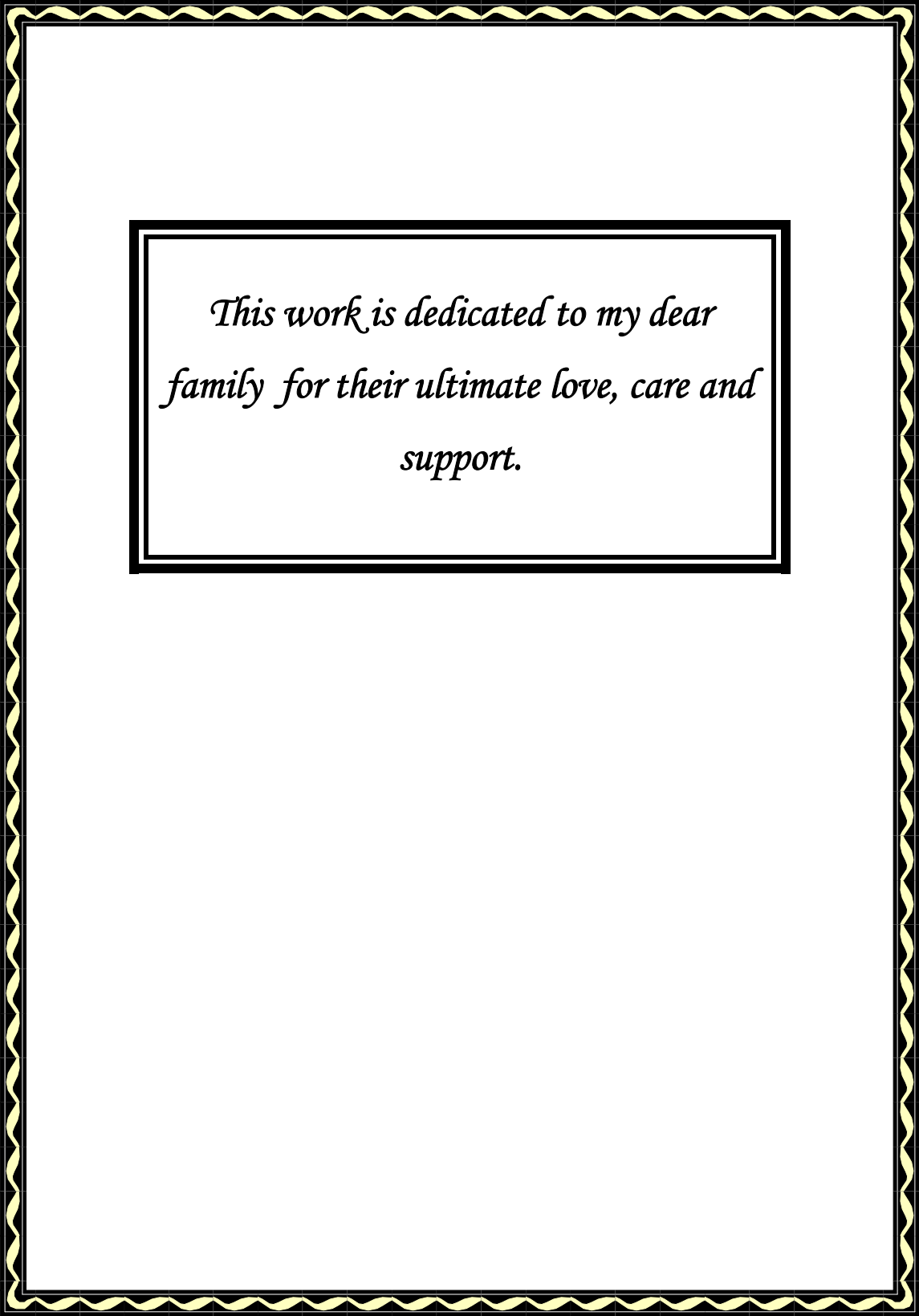
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*This work is dedicated to my dear  
family for their ultimate love, care and  
support.*

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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## LIST OF ABBREVIATIONS

<b>AC</b>	Adenocarcinoma
<b>AJCC</b>	American joint committee on cancer staging system
<b>BE</b>	Barrett's esophagus
<b>BMI</b>	Basal metabolic index
<b>CT</b>	Computed tomography
<b>COX-2</b>	Cyclo-oxygenase-2.
<b>CR</b>	Complete response
<b>DFS</b>	Disease-free survival.
<b>DNA-HPV</b>	Deoxy nucleic acid- Human papilloma virus
<b>EGF-R</b>	Epidermal growth factor receptor.
<b>EMR</b>	Endoscopic mucosal resection.
<b>EUS</b>	Endo-ultrasonography
<b>EUS-FNA</b>	Endoscopic ultrasound guided fine needle aspiration
<b>FDG</b>	Florodeoxyglucose
<b>FEV1</b>	Forced expiratory volume in 1 second
<b>FED-PET</b>	Florodeoxyglucose- positron emission tomography
<b>GERD</b>	Gastroesophageal reflux disease



<b>GY</b>	Gray
<b>HGD</b>	High grade dysplasia
<b>HPV</b>	Human papilloma virus
<b>LES</b>	Lower esophageal sphincter
<b>LGD</b>	Low grade dysplasia
<b>L.N</b>	Lymph node
<b>MIS</b>	Minimally invasive staging
<b>MRI</b>	Magnetic resonance imaging
<b>NSAIDs</b>	Non-steroidal anti-inflammatory drugs
<b>OR</b>	Odds ratio
<b>PET</b>	Positron emission tomography
<b>PLE</b>	Pharyngo-laryngo-esophagectomy
<b>PPI</b>	Proton pump inhibitors
<b>RTOG</b>	Radiation therapy oncology group
<b>SCC</b>	Squamous cell carcinoma
<b>SCC-RA</b>	Squamous cell carcinoma- related antigen.
<b>SES</b>	Socio-economic status
<b>SIREC</b>	Stent or intraluminal radiotherapy for inoperable esophageal carcinoma
<b>SN</b>	Sentinel node
<b>THE</b>	Transhiatal esophagectomy



<b>TTE</b>	Transthoracic esophagectomy
<b>UES</b>	Upper esophageal sphincter
<b>2-FL</b>	Two-field lymphadenectomy
<b>3-FL</b>	Three-field lymphadenectomy

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## INTRODUCTION

Esophageal cancer is a highly lethal malignancy, with a relative 5-year survival rate of only (16%) of patients. It is the eighth most common cancer worldwide and represents the seventh cause of cancer death in the world. **(Jemal, et al., 2007)**

Esophageal cancer occurs most commonly during the sixth and seventh decades of life. **(Jemal, et al., 2007).**

Incidence of esophageal carcinoma can be as high as (30-800) cases per (100,000) persons in particular areas of northern Iran, some areas of southern Russia, and northern China. Unlike in the United States, squamous cell carcinoma is responsible for (95%) of all esophageal cancers worldwide **(Islami, et al. 2009).**

There are various subtypes, primarily adenocarcinoma (approx. 50-80% of all Esophageal cancer) and squamous cell cancer. **(Merry, et al. 2007)**

Squamous cell cancer arises from the cells that line the upper part of the esophagus. Adenocarcinoma arises from glandular cells that are present at the junction of the esophagus and stomach. **(DeMeester, 2005).**

It remains difficult to address specific risk factors for the development of esophageal cancer, (Chronic inflammation, epithelial hyperplasia, gastroesophageal reflux disease (GERD), Barrett's esophagus, tobacco smoking, heavy alcohol use and stasis of food) may contribute to malignant transformation. **(Brooks, et al., 2009).**

Gastroesophageal reflux disease (GERD) is the most common predisposing factor for adenocarcinoma of the esophagus, it is estimated that ( $\frac{1}{2}$  to 1%) of patients with Barrett's esophagus develop adenocarcinoma each year, the interval between the onset of symptoms of achalasia (which is precancerous) and the development of cancer is approximately (15 – 20) years. **(Layke, 2006).**

In over (85%) of patients with esophageal cancer, the presenting symptom is dysphagia, which is initially for solids and later on progress to liquids, other common symptoms are (weight loss, cough, and regurgitation) with associated symptoms, which reveal tumor infiltration such as (pain, hoarseness of voice and respiratory symptoms). **(Layke, 2006).**

The tumors disseminate by direct invasion into surrounding mediastinal structures, through bloodstream by local