Preface

Esophageal cancer is ranked as the eighth most common and sixth most deadly cancer worldwide. The incidence of esophageal cancer has continued to increase steadily over the last several decades. It is estimated that there will be 17,650 new cases of esophageal cancer diagnosed, with 16,080 dying from the disease in the United States in 2019. Surgical resection, often in combination with neoadjuvant chemoradiation remains the primary method for treatment of patients with locally advanced esophageal cancer. Esophagectomy is associated with a high morbidity and mortality, and the long-term survival similarly demonstrates poor outcomes despite improvements in multi-modality care.

Esophagectomy is often performed via an open or minimally invasive trans-abdominal, trans-thoracic (Ivor Lewis), or three-incision (Mckeown) technique. MIE offers several potential advantages over traditional open esophagectomy. These include enhanced recovery time and decreases in: blood loss, post-operative complications and length of hospitalization. A plethora of data has demonstrated that MIE does not compromise oncologic principles and is safe compared to traditional open esophagectomy for esophageal cancer. Moreover, the transthoracic or Ivor Lewis approach when performed via a minimally invasive approach has the potential to significantly reduce pulmonary complications, a substantial morbidity associated with the open approach.

The DaVinci surgical system was approved for use by the FDA in 2000 and recent improvements in robotic technology has led to the application of robotics in patients undergoing esophageal resection. Robotic assisted esophagectomy is an emerging technique that allows the surgeon a broader and three-dimensional view of the operative field with the added benefit of improved instrument articulation over standard thoracoscopy and laparoscopy. While there are significant pros and cons to robotics, its utility in regards to esophageal resection is highly debated amongst surgeons.

The *Minimally Invasive Surgery for Esophageal Cancer* is a collection of papers recently published by experts in this field working in renowned centers all over the world and provides an exhaustive review of esophageal cancer and minimally invasive approaches to esophageal resection.

In its five sections, Summary, Application (I) Esophageal Cancer, Application (II) Benign Disease, Complication-Chylothorax, and Prognosis, the authors discuss the current state of minimally invasive esophagectomy including robotics, summarize complications, and discuss its role in benign disease. They also discuss varying techniques which are surgeon and institutional dependent. Topics that are of particular interest including robotic esophagectomy in the elderly patient and in the setting of neoadjuvant therapy are also addressed.

In this way the reader has a complete scenario of the current status, application, techniques and outcomes for minimally invasive esophageal surgery. This textbook may be used to guide young surgeons in their endeavor's to institute a minimally invasive or robotic esophageal program. Moreover, senior surgeons with an interest in esophageal surgery may look to this as a guide when contemplating applying a new skill.

It has been my honor and pleasure to provide the preface to this textbook which is the result of the effective cooperation between colleagues, with a marked interest in esophageal cancer and esophageal surgery. This textbook represents one of the most comprehensive works regarding esophageal cancer and the authors should be commended for their ongoing success, passion and interest in this field and sincere gratitude for all authors in sharing their work. I would also like to thank the AME publishing team which have taken care of the editing process.



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