

# Preface

We are living in exciting times in thoracic surgery and it is a privilege to be part of the ongoing revolution in the range of minimally invasive operations that are now possible in our specialty. Have you every stopped to think how fortunate we are to work in the thoracic cavity, which is ideally suited for minimally invasive approaches? We are able to selectively intubate one lung while the other oxygenates the patient. We have a fixed cavity and thus carbon dioxide insufflation is not mandatory; we have a great deal of space in which to work; but most importantly, the alternative maximally invasive option of thoracotomy is perhaps the most painful incision possible and thus our patients have the most to gain from minimally invasive approaches.

Endoscopic lobectomy, which is a thoracic surgeon's entry into the world of endoscopic thoracic surgery, has been advancing at an astounding pace. Perhaps even seven years ago, a surgeon who performed video-assisted thoracoscopic (VATS) lobectomy was at the very pinnacle of his field, but now a whole host of improvements to the more conventional VATS approaches have emerged, from reducing the number of ports down to uniportal surgery, to alternative approaches such as subxiphoid or robotic surgery, and the application of VATS to more extended operations such as sleeve resections and Pancoast resections. Thus there is a vibrant group of thoracic surgeons developing and sharing their ideas around minimally invasive thoracic surgery. In contrast to lung resection surgery, mediastinal surgery is performed much more rarely and is far less uniform in its presentation. However, this very much plays to the strengths of our current thoracic surgery community, where ideas can be shared and compared in conferences but also increasingly through online platforms such as YouTube and [www.ctsnet.org](http://www.ctsnet.org). Surgeons with outstanding endoscopic skills are applying these new techniques to mediastinal conditions, and using these uniportal, robotic or subxiphoid experiences to treat each novel situation as it appears before them. In my personal journey into minimally invasive mediastinal surgery, I was trained in a unit that did not perform VATS thymectomy and went to work in a unit that did not perform these operations. So, once comfortable with the principles of endoscopic lobectomy, I was naturally very interested to hear about minimally invasive thymectomy. I visited Oxford to observe this operation for the first time, but I saw another 20 operations online, ranging from left-sided, to right-sided, to bilateral approaches, as well as operations with cervical or subxiphoid incisions, before attempting my first operation.

It is also important to be very aware of the gold standards in open and VATS surgery to which we must adhere. I regard the International Thymic Malignancy Interest Group guidelines on minimally invasive resection of thymoma and also the Myasthenia Gravis Foundation of America definitions of what constitutes an adequate thymectomy (1,2) to be the bibles without which we should never pick up an endoscope. Once armed with my bibles and my host of videos and accounts, I was ready to embark on endoscopic mediastinal surgery and I have now performed left-sided, right-sided, bilateral and robotic mediastinal surgery in addition to a hybrid version of thymectomy documented in this edition. If I had any words of advice for a surgeon embarking on this process, I would say that there is perhaps nowhere else in surgery more ideally placed than the mediastinum for one to practice the genuine 'art' of surgery. By this, I mean that the surgeon is be able to use his or her skills and knowledge to 'create' an operation ideally suited to each individual patient. The surgeon will need to change and be flexible as the clinical picture changes and each patient presents with different issues. One day, a thin elderly patient might present with an anterior mediastinal mass that may be a metastasis or a thymic malignancy, requiring the surgeon to be quick, excise the mass and surrounding thymus, and protect the lungs. The next day, a young laborer might present with a new diagnosis of myasthenia, who needs an extended thymectomy and is far less concerned about the magnitude of surgery and more about his long term prognosis.

This is the reason that we have assembled this edition of the *Annals of Cardiothoracic Surgery* (Figure 1). We hope that we can provide you with a rich source of ideas and concepts to help you design your next mediastinal operation for the patient in front of you. Furthermore, I hope that this stimulates you to also share your ideas online or in print at the *Annals* so that we may also learn from your experiences.

## References

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