Mediastinal malignancies are kinds of relatively rare malignant tumors in the thorax, among which thymoma is the most common. Surgery plays an important role in the treatment of thymoma. Total thymectomy is recognized as the standard treatment for thymoma. In recent years, with the rapid development of operation technology in thoracic surgery, minimally invasive surgical treatment of thymoma has made great progress, gradually from open thoracotomy to video-assisted thoracic surgery (VATS), robot-assisted thoracic surgery (RATS) and tubeless RATS.

Studies from the International Thymic Malignancies Interest Group (ITMIG) and the European Society of Thoracic Surgeons (ESTS) databases show that the proportion of patients with thymoma undergoing minimally invasive surgery (MIS) is increasing year by year. A single-center retrospective study suggests that MIS for thymoma can achieve oncological effects at least as good as open thymectomy, and even has the advantages of less bleeding and lower incidence of complications during the perioperative period. In terms of radical resection, studies from ITMIG and NCDB databases confirmed that whether MIS or open had no effect on the R0 resection rate, the operation approach was not an independent determinant of radical resection. These results indicate MIS for selected patients can result in less surgical trauma, lower incidence of complications, less postoperative pain, shorter hospital stay, and better recovery. And VATS thymectomy can further reduce postoperative drainage, shorten the time of chest tube placement, and improve lung function early, which can undoubtedly be more beneficial to postoperative patients.

For the MIS of mediastinal malignancies, in addition to the traditional VATS, RATS is also one of the representative operations. The first case of thymectomy successfully being performed with da Vinci robotic surgery system was reported by Japanese scholars in 2001. A large number of studies have shown that RATS is a feasible surgical approach for the treatment of anterior mediastinal masses such as thymoma. The da Vinci robotic surgery system has naked-eye 3D imaging technology, which magnifies the surgical field of vision by 10 to 15 times. The operator can clearly identify the vessels of the lesion and the anatomical relationship with the surrounding important organs. The robotic arm wrist with filter shaking function has seven free ranges of motion, which can rotate at multiple angles. The surgeon`s operation of the instrument is stable, and can perform complex surgery in a small space, completely imitating the movement of the human hand. Only 2-3 small incisions were left in the chest wall of the patients after operation, which was more minimally invasive. At present, some studies have found that RATS owns more advantages than VATS in postoperative hospital stay and postoperative drainage days, indicating that RATS is better than VATS, in postoperative recovery. There is no significant difference in blood loss, conversion to thoracotomy, postoperative pneumonia, postoperative myasthenia gravis crisis and overall postoperative complications between the two groups, indicating that RATS shares the same safety and effectiveness as VATS.

This book tells a lot of interesting stories about surgery for thymic disease and the evolution to minimally invasive mediastinal surgery. The author systematically and in detail introduces the technique of mediastinal surgery through different approaches and the history of MIS in mediastinal, the latest progress, the trend of future development and the difficulties we have encountered at present. This is very enlightening for every thoracic surgeon. Besides, the text is well-written and well-edited, providing relevant information for experienced thoracic surgeons as well as others interested in the minimally invasive mediastinal operation. This is an outstanding reference, one that will extremely useful for the modern management and treatment of thymic malignancies, as there will be an increased focus on optimizing the advantages of minimally invasive strategies.

It is his extreme diligence, self-discipline, enthusiasm, and constantly seeking for excellence that makes the brilliant of him. I am deeply touched by his outstanding contributions in the field of thoracic surgery. I think you will surely find all the shining in this artwork of operation. Not only that, I hope you will be as inspired as we are.

Mahmoud Ismail, MD
Department of Thoracic Surgery, Klinikum Ernst von Bergmann Potsdam,
Academic Hospital of the Charité-Universitätsmedizin Humboldt University Berlin, Germany

Diego Gonzalez-Rivas, MD
Department of Thoracic Surgery, Coruña University Hospital, Xubias 84, 15006 Coruña, Spain