Recently, in the field of thoracic surgery, endoscopic surgery is performed for almost all diseases owing to its low invasive nature. Various endoscopic approaches for thymectomy have also been reported till date. The following three anatomical approaches may be used for thymectomy to avoid median sternotomy: transcervical thymectomy, which starts in the cervical region; thymectomy from either side of the chest, which starts in the intercostal space; and the subxiphoid approach. Of these approaches, thymectomy through either side of the chest has been the most widely adopted approach; however, the subxiphoid approach has also been increasingly attracting attention as it provides a visual field similar to that provided by the median sternotomy and helps prevent intercostal nerve injury.

For the endoscopic application of the aforementioned approaches, increasing the number of new endoscopic approaches has been adopted. A future outlook of endoscopic surgery suggests two orientations: one in which the current degree of less-invasiveness will be maintained while more difficult surgical techniques with higher accuracy will be pursued and the other in which the current degree of surgical accuracy will be maintained while less invasive techniques will be pursued. Currently, robotic surgery and uniportal video-assisted thoracic surgery (VATS) have been adopted and represent the former and latter orientations, respectively. Robotic surgery provides 3D vision and enables additional precise operations that will not involve the surgeon's physiological tremor. The joints of robots used in surgeries move in a manner similar to those of humans, making it possible to perform surgeries that cannot be performed by humans alone. The fact that VATS is performed by humans is considered as its limitation, continuous development in the field of robotics will easily eliminate such a limitation. Advances in the field of robotics are certainly the key to the future development of surgery. Moreover, in recent years, uniportal VATS has been increasingly adopted worldwide. This surgical technique aims to further achieve less invasiveness and to widely acceptance by patients as it is expected to leave less noticeable surgical scars and result in less pain. While there is a limitation regarding its operability, this issue will be resolved as relevant tools are further developed. Uniportal VATS may also change in the near future if a robotic system is developed.

While performing endoscopic thymectomy, the surgeon should understand the advantages and disadvantages of various approaches, such as that performed through either side of the chest and the subxiphoid approach, in detail. It is also important that surgeons make decisions that optimally benefit the patient while taking into account if uniportal or robot-assisted surgery is indicated for that particular patient. This book provides information on the surgical techniques of minimally invasive thymectomy used by experts worldwide and may provide key insights for the further development of such techniques. I hope that this book will help readers further refine the techniques they use for minimally invasive thymectomy and will contribute to the development of new techniques for this surgery.

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