

Tracheal resection followed by reconstruction and bronchoplasty is a very useful technique for preserving the postoperative pulmonary function as much as possible and maintaining the patient's postoperative quality of life. It is difficult to plan a randomized controlled trial to compare the postoperative mortality and complications (including respiratory complications) between thoracotomy and video-assisted thoracoscopic surgery (VATS) undergoing tracheal resection followed by reconstruction and bronchoplasty, because these procedures are relatively uncommon. However, it would be even better for patients if these operations could be performed with minimally invasive VATS.

Technical issues specific to the VATS approach, including airway management, port strategy, reduction of anastomotic tension, extent of resection, modes of reconstruction, suturing techniques, types of suture thread, and prophylactic wrapping are written in this book. VATS carinal resection and reconstruction remain challenging due to the limited modes of carinal reconstruction as well as problem specific to the VATS approach, such as airway management, reduction of anastomotic tension, and suturing techniques. However, VATS carinal surgery may be feasible using certain devices, such as high-frequency jet ventilation (HFJV) using a blocker tube, effective traction using endoscopic devices, keeping surgical field using retraction device, and continuous suture techniques, and should be performed either by or with skilled and experienced VATS surgeons. In addition, further challenging, such as non-intubated anesthesia and a uniportal strategy for VATS trachea-bronchoplasty procedure underwent at centers with a great deal of experience.

However, these operations cannot be easily accomplished via VATS, and remain challenging at present, so thorough preoperative simulations must be conducted in order to prepare for any potential serious complications. It is very important to share experiences among thoracic surgeons concerning minimally invasive procedures and safe techniques that help avoid complications in patients. This book details a number of techniques and tips deemed useful for tracheal resection followed by reconstruction and bronchoplasty.

Just as VATS lobectomy, which was uncommon 20 years ago, is now a standard procedure, so too may robot-performed trachea-bronchoplasty become a standard procedure in the near future. With the development of various technologies and the ingenuity of the thoracic surgeons, it is thought that the less invasive and safe VATS trachea-bronchoplasty procedure will be created. It is a great pleasure if this book is as useful as possible for the creation of new techniques and novel ideas by future thoracic surgeons.

I'm honored to have been asked to pen the preface to this book. I hope that this book, being read by many thoracic surgeons, will facilitate the establishment of safer, less invasive trachea-bronchoplasty procedures and benefit patients around the world.



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