



Sixth International
Joint Meeting on
**THORACIC
SURGERY**
Barcelona - 20th, 21st and 22nd November 2024
Auditorio Foment del Treball Nacional, Barcelona (Spain)

11th International Meeting on General Thoracic Surgery



Hospital
Universitari
Sagrat Cor

10th International Workshop on Surgical Exploration of the
Mediastinum and Systematic Nodal Dissection



5th Meeting of the Thoracic Oncology, Thoracic
Surgery, Techniques & Transplant, Respiratory Nursing
and Respiratory Physiotherapy Areas of the Spanish
Society of Pneumology and Thoracic Surgery (SEPAR)



3rd Joint Meeting of the Spanish Society of
Thoracic Surgery (SECT)



30th Congress of the "Asociación Iberoamericana
de Cirugía Torácica" AIAC



10th International Workshop on Surgical Exploration of the
Mediastinum and Systematic Nodal Dissection



A ROBOTIC FISSURELESS RIGHT LOWER LOBECTOMY

Toshiyuki Shima; Hikaru Aoki

*Department of General Thoracic Surgery, Ashikaga Red Cross Hospital, 2-1 Suwa, Ashikaga,
Tochigi, 326-0843, Japan*

Introduction

Thoracoscopic lobectomies are complicated by incomplete interlobar fissures, which significantly heighten the risk of morbidity. Robot-assisted thoracoscopic surgery (RATS) using a fissureless technique offers a promising approach, particularly through the maintenance of a 'looking-up' view, essential for safely managing these anatomical challenges.

Indication of the Technique

This technique is especially beneficial for patients with severe incomplete interlobar fissures where traditional visualization during video-assisted thoracoscopic surgery (VATS) is inadequate. The 'looking-up' view facilitated by the robotic system is crucial for these complex cases.

Description of the Technique

A 66-year-old man with cStage IIA squamous cell carcinoma underwent a RATS right lower lobectomy. Four robotic ports and one assist port were utilized. The critical aspect of this procedure was maintaining a 'looking-up' view, pivotal for precise navigation and manipulation of surgical instruments. Additionally, near-infrared fluorescence imaging with indocyanine green (ICG) was employed not only to delineate the interlobar line but also to aid in understanding the branching patterns of the pulmonary arteries. This enhanced visual differentiation supports accurate identification and strategic division of these critical structures.

Conclusion

The use of a 'looking-up' view as a primary strategy in RATS lobectomy significantly enhances the surgical safety and efficacy for patients with severe incomplete interlobar fissures. Integrating ICG fluorescence imaging as a secondary tool further supports this technique by providing enhanced visual cues for pulmonary artery branches, which minimize intraoperative complications and reduce the likelihood of conversion to open thoracotomy. This approach is recommended for broader adoption in thoracic surgery to improve outcomes in patients with complex pulmonary anatomies.