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11<sup>th</sup> International Meeting on General Thoracic Surgery



10<sup>th</sup> International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection



5<sup>th</sup> 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)



3<sup>rd</sup> Joint Meeting of the Spanish Society of Thoracic Surgery (SECT)



30<sup>th</sup> Congress of the "Asociación Iberoamericana de Cirugía Torácica" AIAC



10<sup>th</sup> International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection



## FIRST RIB RESECTION VIA ROBOTIC ASSISTED THORACOSCOPY

Linda Klimavicius Palma; Carlos Martinez-Barenys; Sebastián Peñafiel Guzmán; Esther Cladellas Gutierrez; Sebastián David Poveda; Marcos Martinez-Aguilar; Josep Oriol Cervantes Rodon and Pedro Enrique López de Castro  
*Hospital Germans Trias i Pujol, Thoracic surgery department and anesthesiology department*

**INTRODUCTION** The resection of the first rib is an effective technique for thoracic outlet syndrome. Conventional surgical methods are limited due to exposure and the risk of injury to neurovascular structures, which leads to morbidity. In contrast, the robotic approach overcomes these limitations and provides excellent postoperative results. **INDICATION OF THE TECHNIQUE** 48-year-old male patient with a clinical and radiographic diagnosis of thoracic outlet syndrome, with left venous involvement, under treatment with Clexane for 7 months, discontinued before surgical intervention. **DESCRIPTION OF THE TECHNIQUE** 1. Detachment of the intercostal muscle from the outer end of the first rib. 2. Opening of the mediastinal pleura and exposure of neurovascular structures. 3. Partial sectioning of the anterior cartilaginous portion. 4. Anterior sectioning of the osseous portion using a burr. 5. Detachment from the anterior to the posterior end, including sectioning of the anterior and medial scalene muscles. 6. Dissection up to the costovertebral junction. 7. Sectioning of the posterior end of the first rib. 8. Venolysis, neurolysis, and arteriolysis. 9. Hemostasis. 10. Placement of a 19Fr Blake drain 11. Lung re-expansion. **CONCLUSION** The robotic approach offers better access, exposure, and dissection of neurovascular and osseous elements with lower postoperative morbidity and reduced recurrence in long-term follow-up.