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11th International Meeting on General Thoracic Surgery



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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
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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



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ROBOTIC PRECISION IN THORACIC SURGERY: MANAGING BRONCHIAL REPAIR CHALLENGES IN ROBOTIC SURGERY

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Objective: Bronchial repair and bronchoplasty involve complex technical procedures. This is increasingly important to lung parenchyma sparing and serves as an index of surgical quality. **Method:** A 71-year-old female, smoker, incidentally detected two lung nodules. Mediastinal adenopathies were observed, ruling out N2 and confirming the diagnosis of adenocarcinoma by mediastinoscopy. During surgical planning, the need for hilar infiltration pneumonectomy was raised. After cutting the corresponding pulmonary vessels by robotic-assisted approach, the right upper lobar bronchus was severed proximally. The lobectomy was completed, and the bronchial margins were resected for anastomosis of the intermediate bronchus at the level of the trachea (main bronchus outlet). Due to excessive tension, three sutures broke and had to be reinforced with prolene. Knots were secured using an ingenious maneuver with metallic clips and mediastinal pleura was used as a flap completing the surgery. **Result:** The patient was discharged on the eleventh day, and subsequent fibrobronchoscopy revealed luminal suture extrusion without bronchial dehiscence with follow-up fibrobronchoscopies that have been successful. Pathological anatomy showed mixed histology nodules, with the patient in good condition and receiving adjuvant treatment. **Conclusions:** Anatomical structure damage presents challenges for surgeons, particularly in high-tension bronchial-to-tracheal sutures. The goal is oncologically radical while preserving healthy lung parenchyma. Robotic technology aids in complex resections, highlighting the crucial role of a surgeon's technical skill and experience in resolving unexpected situations.