

Safety and Feasibility of Transareolar Single-port Thoracoscopic Surgery for Mediastinal Lymph Node Dissection

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Introduction

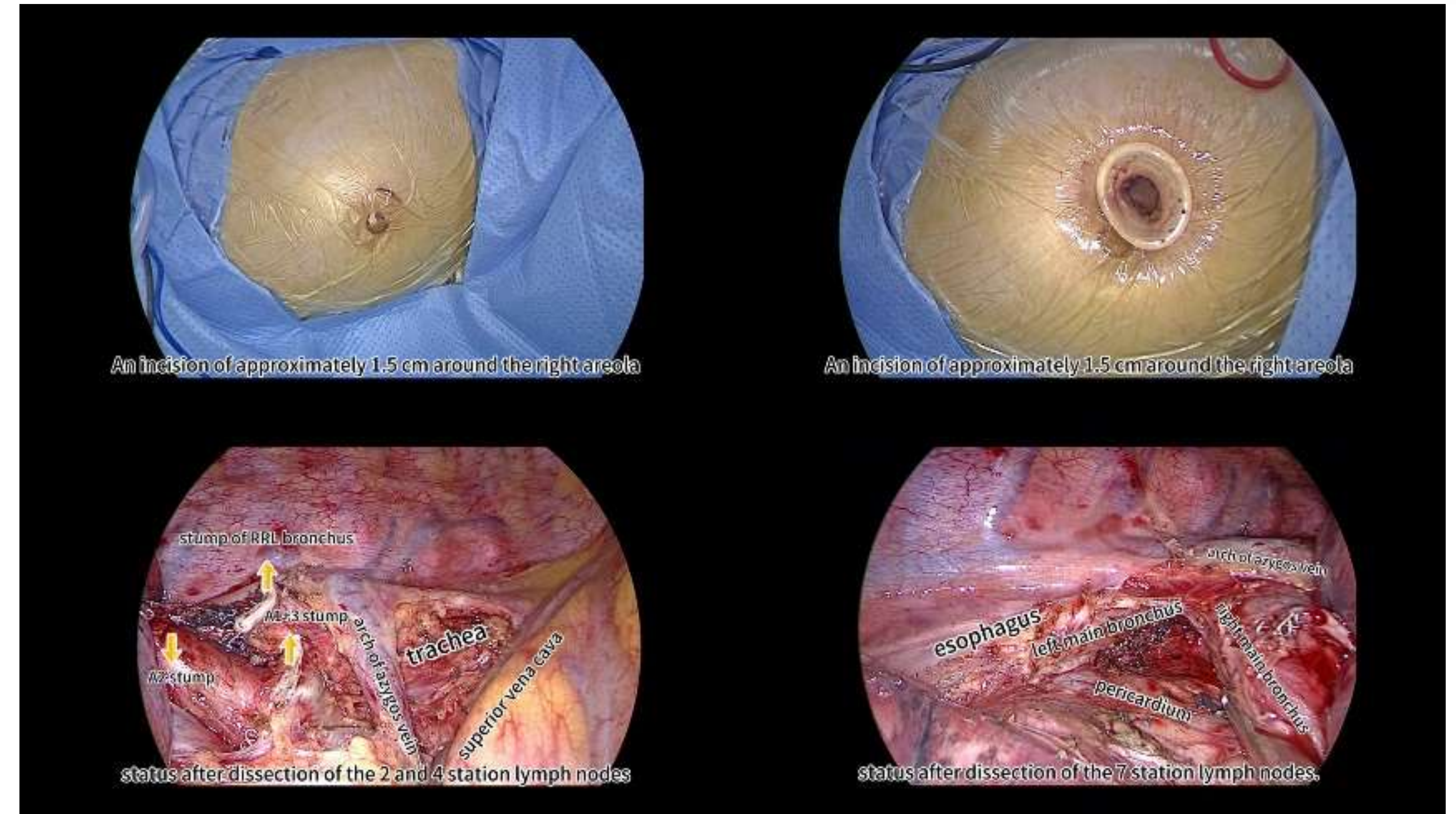
Thoracoscopic surgery is advancing towards fewer incisions and reduced trauma. Currently, single-port thoracoscopy has gradually become the mainstream approach for treating lung cancer. However, traditional single-port thoracoscopic surgeries still leave visible scars. Therefore, the technique of transareolar single-port thoracoscopy offers better cosmetic outcomes and minimal trauma, has been applied in lung cancer surgery. Mediastinal lymph node dissection is crucial in lung cancer surgery for clinical staging and prognosis. There are currently no reports on the use of the transareolar single-port thoracoscopy for mediastinal lymph node dissection. We present our experience with seven cases of mediastinal lymph node dissection via transareolar single-port thoracoscopic surgery to validate its safety and feasibility.

Methods

After successful general anesthesia, an incision measuring approximately 1/8 to 1/4 of the circumference of the areola was made at the outer edge, followed by dissection along the subcutaneous plane around the breast, avoiding breast tissue, and entering the chest cavity through the 4th intercostal space. A 50 mm incision protector was placed, and single-port thoracoscopic lung resection and mediastinal lymph node dissection were performed.

Results

We successfully completed mediastinal lymph node dissection in seven cases using the trans-areolar single-port thoracoscopic. There were no complications such as infection, subcutaneous emphysema, pleural effusion, or bronchopleural fistula.



Conclusions

Trans-areolar single-port thoracoscopic mediastinal lymph node dissection is safe and feasible. However, due to the limited number of cases in our study, further research is warranted to validate its effectiveness.