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VATS LOBECTOMY

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When discussing different anatomical lung resections techniques, one should include safety, oncological quality, potential to increase the adoption rate of minimal invasive thoracic surgery (MITS) and costs in the consideration, preferably in this order of importance (1).

The VIOLET RCT has clearly demonstrated superiority (pain control, complications, hospital stay, readmission rate and adjuvant treatment) of VATS over thoracotomy in early stage lung cancer (2).

Meanwhile the adoption rate of RATS is expanding, giving surgeons undeniable extra dexterity and very possibly helping to raise the general adoption rate of MITS, although at a higher cost (3–5). Interestingly, several retrospective studies have demonstrated a lower conversion rate with RATS compared to VATS (6–8). Missing confounding factors that lead to the surgeon's assumption of higher chance of conversion and reluctancy to start the case by a more costly RATS approach can play a role. Two small RCT's failed to find a difference in conversion rate (5, 9). While a large meta-analysis did not show a difference in lymph node assessment (7), (N1) nodes resection was better during RATS compared to VATS in a propensity matched retrospective study on segmentectomies and in both known RCT's (4, 5, 9).

Surgeons and/or centres that are proficient in both VATS and RATS anatomical resections, might adopt a strategy with balanced choice between the two techniques, e.g. considering RATS for cases with complex segmentectomies, higher risk for pN1, bronchial suturing vs. VATS for most of the anatomical resections and specific cases with significant risk of technical conversion to thoracotomy.

References

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