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UNIPORTAL VERSUS THREEPORTAL VIDEO ASSISTED THORACIC SURGERY LOBECTOMY: ANALYSIS OF THE ITALIAN VATS GROUP DATABASE

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Objectives:
The possible advantages of the uniportal on the threeportal videoassisted thoracic surgery (VATS) lobectomy are still to be determined. This study investigated this item within the Italian VATS Group Database. The primary endpoint was the early postoperative pain; secondary endpoints were intra and postoperative complications, conversion rate, surgical time, number of dissected lymphnodes, and length of stay.

Methods:
The study was a retrospective, cohort multicentre trial on data prospectively collected by 49 Italian thoracic units. Inclusion criteria were: clinical stage I-II NSCLC, uniportal or threeportal VATS lobectomy, R0 resection. Exclusion criteria were: cT3 disease, previous thoracic malignancy, induction therapy, connective tissue disease, peripheral vascular disease, dementia and diabetes mellitus with organ damage. Pain parameter was dichotomized: numeric rating scale (NRS) ≤ 3 described mild pain, whereas NRS score > 3 described moderate/severe pain; the generalized estimating equation (GEE) was used for statistical analysis.

Results:
Among 4338 patients enrolled in the Italian VATS Group Database from January 2014 to July 2017, 1980 entered the inclusion criteria; 1808 patients received threeportal lobectomy and 172 uniportal surgery. The two groups were homogeneous except age, Charlson index, PET SUV, and peridural catheter. On the 2nd and 3rd postoperative day the uniportal group odds ratios for moderate/severe pain were 2,54 (95% C.I. 1,81-3,56, $p<0,001$) and 2,98 (95% C.I. 1,94-4,28, $p<0,001$), respectively. Uniportal group had higher operative time ($p<0.001$) and conversion rate ($p=0.004$) but shorter length of stay ($p<0.001$). This trial has limitations typically related to retrospective multicenter studies; moreover, the two cohorts were highly unbalanced.

Conclusion:
The analysis of the Italian VATS Group Database revealed that uniportal lobectomy had higher risk of moderate/severe pain on second and third postoperative day, higher conversion rate, longer surgical time but shorter length of stay. These results support the need for a randomized controlled trial.

Disclosure: No significant relationships.

Keywords: Italian VATS Group, VATS, uniportal, threeportal, lobectomy

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