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IMPACT OF PREVIOUS EXPERIENCE IN MINIMALLY INVASIVE SURGERY ON THE ROBOTIC PULMONARY LOBECTOMY LEARNING CURVE

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OBJECTIVE.

Robotic assisted thoracic surgery (RATS) has emerged as a promising technique for the treatment of lung diseases. In this study, we seek to identify the influence of previous experience in minimally invasive surgery by comparing the learning curves of robotic lung lobectomy between surgeons with or without previous experience in videothoracoscopy.

METHODS.

Prospective, multicenter and analytical design, was carried out in two centers. First consecutive robotic lung resections performed in both centers were included for analysis. Demographic and clinical data were collected and comparisons were made of the variables of interest, including surgical time, days of pleural drainage, days of hospital stay, and the incidence of complications. The learning curve was assessed using the CUSUM method.

RESULTS.

60 patients were included during the study period, 30 VATStoRATS Group and 30 THOtoRATS Group, displayed no significant differences. The average surgical time was 162.5 minutes (±47.5) in the VATStoRATS Group and 159.4 minutes (±36.3) in the THOtoRATS Group (p = 0.778). The RATS learning curve for lobectomies was completed at 23 procedures for VATStoRATS Group, while THOtoRATS Group required 21 interventions. No statistically significant differences were found among groups in terms of days of pleural drainage, days of hospital stay and incidence of postoperative complications.

CONCLUSIONS.

Based on the results observed in this study, we can conclude that previous experience in videothoracoscopy does not seem to significantly influence the learning curve of robotic lung lobectomy.