

Comparison of LigaSure to Conventional Electrocoagulation in Video-assisted Thoracoscopic Surgery Lobectomy, NCT03125798 June 10, 2016

This study was powered for superiority in accordance with the data for total chest drainage volume in patients after VATS lobectomy and lymphadenectomy with monopolar electrocautery; these data were obtained from the institutional database (2013–2015; $n = 278$). If the mean total postoperative chest drainage volume were 750 ± 250 mL, and if the dropout rate were 10%, a sample of 214 patients (107 patients per group) would provide at least 85% power to detect a clinically important difference of 125 mL for this endpoint between the two groups, according to two-sided tests with a 5% level of significance.

The analyzed data were calculated as means \pm standard deviations, medians, minimum and maximum values, interquartile ranges (IQRs; quartile 1 to quartile 3), or percentages, as appropriate. We used the Shapiro–Wilk test to check normality of distribution and Levene’s test to check equality of variances. To compare the two unpaired groups, we used the unpaired t test for data that followed a normal distribution and had homogeneity of variances; otherwise, we used the Mann–Whitney U test. To analyze categorical data, we used the χ^2 test when the sample size was larger than 40 and all expected values were greater than 5; for other situations, we used Fisher’s exact test or the χ^2 test with Yates’s correction; or the Fisher-Freeman-Halton test for contingency table larger than 2×2 with any expected values was less or equal to 5. All results were considered significant when $p < 0.05$. To perform statistical analyses, we used Statistica 13.0 (StatSoft, Dell, Round Rock, TX, USA) or StatXact 11.0 (Cytel, Cambridge, MA, USA).