

Statistical analysis

Official title: Effects of deep neuromuscular block on surgical pleth index-guided remifentanyl administration in laparoscopic herniorrhaphy: A prospective randomized trial

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The primary outcome was the infusion rate of remifentanil during pneumoperitoneum. Based on the findings of a previous study, we considered a difference in remifentanil infusion rate $>0.032 \mu\text{g}/\text{kg}/\text{min}$ (16% of mean infusion rate of remifentanil in moderate NMB under SPI-guided anesthesia for laparoscopic surgery [mean infusion rate of 0.192 (SD 0.064) $\mu\text{g}/\text{kg}/\text{min}$]) as clinically relevant. Based on a significance level of 5% and statistical power of 80%, each group required 63 subjects for analysis. We enrolled a total of 134 patients to compensate for dropouts and observational variation.

Statistical analyses were conducted using SPSS software version 25.0 (IBM, NY, USA). Data are presented as mean \pm SD, median (interquartile range), and number of patients. The normality of distribution was tested using the Kolmogorov–Smirnov/ the Shapiro–Wilk test. Continuous data were compared using a two-tailed t test when normally distributed; however, Mann-Whitney *U*-test was used for non-normally distributed data. Categorical data were compared using the Chi-square test or Fisher's exact test, as appropriate. Intergroup comparisons for repetitively measured data were performed by unpaired t-test with Bonferroni correction. *P*-values < 0.05 were considered statistically significant.