Supplementary Fig. 1. Study protocol. Diaphragm evaluation using ultrasound and spirometry was performed before and after surgery.

Enrollment & PFT → US diaphragm exam → CCB20 or CCB40 → PCA start → Pain score assessment → Opioid consumption evaluation

1 day before surgery → Intra OP → PACU → Post OP (48hr)

GA, general anesthesia; PFT, pulmonary function test; US, ultrasound; CCB20, costoclavicular block (CCB) with 20 mL of 0.75% ropivaclaine; CCB40, CCB with 40 mL of 0.375% ropivaclaine; PCA, patient-controlled analgesia; PFT, pulmonary function test.