Abstract

Background: It has been suggested that there is some benefit when awake thoracic epidural anesthesia (ATEA) is used for minimally invasive thoracoscopic procedures in critical patients. We tested the hypothesis that ATEA is superior to general anesthesia (GA) when comparing early pulmonary complications in this setting. Methods: A prospective cohort study was carried out over a 36-month period, comparing patients with malignant pleural effusion scheduled for thoracoscopic talc pleurodesis (TTP) using GA vs. ATEA. Postoperative pulmonary, cardiac, and renal complications, death rate, quality of analgesia and events were analyzed. Univariate and bivariate analyses were performed and time survival probability curves were developed in order to find a possible relation between a particular anesthetic technique and postoperative complications. A p value of <0.05 was considered significant. Results: Forty-seven patients were included in the analysis. Preoperative characteristics were comparable between groups (GA n = 24; ATEA n = 23). Incidence of pulmonary complications [GA = 19 (86%) vs. ATEA = 3 (14%). RR 6.0 (95% CI 2.07–17.7); p < 0.001] and severity of postoperative pain (VAS > 8) at 24 h [GA = 7 vs. ATEA = 1 RR 6.7 (95% CI 1.13–18.2); p = 0.023] were significantly higher when patients received GA. Time required to absence of any postoperative ventilatory support and mobilization with no major restrictions [GA = 4 (3.5–5) vs. ATEA = 3 (2–3.5) days; p = 0.029] and global LOS [GA = 10 (3.5–29.5) vs. ATEA = 4 (3–15.2) days; p = 0.003] were significantly reduced in the ATEA group. Conclusions: Our study suggests that ATEA is not only a safe anesthetic approach for cancer patients undergoing TTP but is also associated with a significant reduction in pulmonary postoperative events, hospital stay, and a better postoperative pain control. Randomized studies are required to corroborate these findings.

Keywords

Epidural anesthesia, Thoracoscopy, Thoracic surgery, Talc pleurodesis.