

Incidence of life-threatening respiratory events after laparoscopic colon surgery with or without continuous respiratory rate monitoring.

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Background

Respiratory depression (RD) is a critical complication of general anesthesia. The present study investigated the incidence of postoperative life-threatening respiratory events after laparoscopic colon surgery in patients observed using continuous respiratory rate monitoring [RM; with oxygen saturation by pulse oximetry (SpO₂)] and traditional respiratory monitoring (TM; SpO₂ monitoring only). In addition, postoperative incidence rates of RD and desaturation in the RM group were determined.

Findings

In this retrospective observational study, medical records of 214 patients who underwent laparoscopic colon surgery were analyzed. A total of 88 patients with RM were observed and compared with 126 patients with TM. Nineteen patients in the RM group were excluded from the final analyses because of incomplete data. No life-threatening respiratory events were observed in the RM group (0/69), whereas two such events (2/126) occurred in the TM group. Incidence rates of postoperative RD and desaturation within 8 h after surgery were 17.1% (12/69) and 24.3% (17/69), respectively, in the RM group.

Conclusions

No postoperative life-threatening respiratory events were observed in the RM group. Furthermore, the incidence rates of RD and desaturation were noted to be relatively high.