Changes in Intraoperative Anaesthetic Parameters During Laparoscopy with Low Pressure vs Standard Insufflation: A retrospective cohort study

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May 17, 2023

Abstract

Objective To evaluate the changes in intraoperative anaesthetic parameters during Low-Pressure laparoscopy with AirSeal® versus standard insufflation laparoscopy in gynaecological surgeries. Materials and Methods 77 patients who had laparoscopic hysterectomy for gynaecological causes were retrospectively identified. Patient demographics, procedure details, the data on intraoperative anaesthetic parameters and duration of recovery from GA after the procedure were collected from patients’ electronic and paper notes. No ethical approval was required for this project and the study was registered as a quality improvement project. Results 41 patients were operated with 7mmHg AirSeal® system and 36 with 15mmHg standard insufflation. Duration of recovery time from GA was significantly lower in the AirSeal® group. Statistically significant differences were also found in the mid-procedure end tidal CO2 levels and peak airway pressure at the end of the procedure. Conclusion In conclusion, our results show that there is no statistically significant difference in anaesthetic parameters between the low-pressure group and standard insufflation group except EtCO2 levels mid-procedure, and that the recovery time after general anaesthesia is significantly lower in the low pressure group.

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