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Combined epidural/general anesthesia versus general anesthesia in laparoscopic gastric by pass surgery in morbidly obese patients

Vascello L, Gandas A,[2]Samba K
Associate Professor, Lexington, KY; [2]Anesthesiology resident, Lexington, KY

Objective: To determine if the use of combined epidural /general anesthesia followed by patient controlled epidural analgesia (EPCA) compared to general anesthesia followed by patient controlled intravenous analgesia (IV PCA) provided faster emergence from anesthesia, less immediate postoperative complications (Pulmonary), superior pain control with less side effects, and faster ambulation/discharge in morbidly obese patients undergoing laparoscopic gastric by pass surgery.
Methodology: Retrospective study of twenty consecutive patients who were allocated into two groups according to the patient's preference for post operative pain control therapy. Patients were educated by the surgeon and the anesthesiologist about the advantages and the disadvantages of either therapy, preoperatively, based on patient's preference; patients were divided into two groups. Group I (control) general anesthesia followed by IV PCA, and group II (study) combined general/epidural anesthesia followed by EPCA. All epidural catheters were placed preoperatively using a standard technique.
Results: The demographic characteristics were similar in both groups with mean age 36 years and mean BMI 53.5 $kg.m^2$. Data are presented as mean $\pm$ standard deviation (SD) and stastical analysis were performed using t-test. Group II patients consumed less anesthetics during intraoperative period in addition to faster emergence, less immediate complication, superior postoperative pain relief (VAS 3.2 Vs 6.4) and early ambulation and discharge from the hospital. The differences were stastically significant. The control group (GA) experienced delayed emergence, complicated by airway problems. One patient extubated in PACU and another patient needed ventilatory support to maintain adequate Spo2 levels. Very few patients have satisfied pain control and delayed ambulation and discharge from the hospital. None of the patients had problems related to the immediate use of SQ adjusted dose of heparin.
Conclusions: Despite the fact that epidural catheter placement in morbidly obese patients could be challenging, combined general and epidural anesthesia followed by epidural PCA provided superior pain relief with very minimal side effects, less immediate pulmonary complications, and early ambulation and discharge from the hospital compared to control patient's (general anesthesia followed by IV PCA).

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