

Efficacy of intraperitoneal instillation of bupivacaine after bariatric surgery: Randomized controlled trial

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Introduction: Obesity is one of the greatest health problems. Bariatric surgery is more effective than non-surgical options; however, postoperative pain is bound to a greater morbidity. Control of postoperative pain is important in facilitating patient convalescence. In this study, we assessed the efficacy of intraperitoneal instillation of bupivacaine after bariatric surgery.

Methods: A hundred patients who underwent bariatric procedures including sleeve gastrectomy, sleeve gastrectomy with cardioplasty, gastric bypass, and gastric mini bypass (one anastomosis gastric bypass) were included in the study. Patients were divided into two groups randomly, 50 patients for each; group I had intraperitoneal instillation of 40 ml bupivacaine 0.25% at the end of the procedure, while group II had normal saline instillation. Monitoring of pain control in the first 24 h after surgery was done using the visual analogue scale (VAS) to assess the efficacy of intraperitoneal bupivacaine instillation and its effect on the overall opioid usage, postoperative nausea and vomiting (PONV), and shoulder tip pain.

Results: Pain scores were significantly lower in group I compared to group II at recovery, 2, 4 and 6 h after surgery, $P = 0.004, 0.001, < 0.001,$ and 0.001 respectively. However, there were no significant differences between 12 and 24 h postoperatively. Additionally, there was a significant difference regarding the need for rescue analgesia at recovery $P = < 0.001^*$. Further analysis revealed lower morphine consumption via PCA in group I compared to group II $P = 0.013^*$. There were no significant differences with the use of intraperitoneal bupivacaine as regards nausea, vomiting, or shoulder tip pain, $P = 0.688, 0.249,$ and $0.487,$ respectively.

Conclusions: Intraperitoneal instillation of bupivacaine provides a good analgesia in the early postoperative period, reduces the overall consumption of opioid, and decreases the rescue analgesia requirement in the first 24 h after surgery.

Biography

Islam Omar, General Surgery Specialist Registrar in Furness General Hospital, NHS, UK. He has a clinical Master degree in General Surgery from Alexandria University and he is a member of the Royal College of Surgeons of Ireland. He is a Fellow of the European Board of Surgery. He has an active research recently and managed to publish some of his recent papers in recognized international journals.

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