

Effect of Preoperative Single Dose Dexamethasone and Lignocaine on Post-Operative Quality of Recovery and Pain Relief after Laparoscopic Cholecystectomy

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Abstract : Introduction: Post-operative quality of recovery is the key outcome in the perspective of anesthesiologist. It is directly related to patient satisfaction. This is unsurprising, considering most aspects of a poor quality recovery after surgery will impair satisfaction with care. This study was thus undertaken to evaluate effects of Dexamethasone and Lignocaine on Quality of Recovery using QoR- 40 questionnaire and compare their effects. Material and methods: After obtaining the ethical committee approval and written informed consent, 67 patients of 18-60 years, ASA grade I and II scheduled for elective laparoscopic cholecystectomy were randomly allocated into two groups. Group I of 34 patients received 2mg/kg lignocaine diluted to 10ml with normal saline. Group 2 of 33 patients received 0.1 mg/kg I/V Dexamethasone diluted to 10ml with normal saline. QoR-40 was assessed on pre-operative day, and again QoR-40 was assessed at 24 hr post-operative day-1. Postoperative pain scores, nausea and vomiting and shoulder pain were secondary outcomes. Results: The Global QoR-40 was more than 180 at 24 hr in both the groups. The Dexamethasone group had higher Global QoR-40 than lignocaine group 187.94 v/s 182.85. Amongst dimensions of QoR-40 Dexamethasone had statistically better physical comfort, physical independence, and pain relief as compared to Lignocaine. Positive items had excellent responses in Dexamethasone group. Headache, backache and sore throat were also less severe in Dexamethasone group as compared to Lignocaine group. Dexamethasone group had lower VAS compared to lignocaine group. Similarly, there was less fentanyl consumption in dexamethasone group (364.08 ± 127.31) in postoperative period when compared to the lignocaine group (412.31 ± 147.8). Group receiving dexamethasone had 36% increase in appetite compared to lignocaine group (17.6%), which facilitated early oral feeding. Frequency of PONV was less in group-2 at different time interval as compared to group 1. Total episode of PONV were 18 in group 1 and 7 in group 2. Statistically significant difference was seen among two groups (p value= 0.007). Use of antiemetic was more in group 1 as compared to group 2 at all the times, though it was not statistically significant at different time intervals. Antiemetics were administered to 18 patients in group 1 as compared to 5 patients in group 2 postoperatively. Statistically significant difference (p value= 0.011) was seen in total antiemetic consumption. Conclusion: Our study demonstrated that pre-operative administration of a single dose of dexamethasone enhanced the quality of recovery after laparoscopic cholecystectomy as compared to Lignocaine bolus dose.

Keywords : dexamethasone, lignocaine, QoR-40 questionnaire, quality of recovery

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