

The Effect of Obesity on Opioid Consumption Following Quadratus Lumborum Block After Cesarean Delivery: A Retrospective Review

Introduction: Obesity plays a significant role in anesthetic management during the peri-operative period. However, studies analyzing the impact of obesity on quadratus lumborum block (QLB) after cesarean delivery is lacking, in part because trials of QLBs exclude patients with higher body mass indexes (BMI). The purpose of this study is to analyze the effect of obesity on opioid consumption following QLB after cesarean delivery.

Methods: Charts of patients who received a QLB after cesarean delivery during 2017-2021 were reviewed. Patients were divided into a control group with BMI < 30 kg/m² and a study group with BMI ≥ 30 kg/m². In addition to baseline demographics, outcome variables studied were opioid request rate, time to first rescue opioid analgesia, and opioid consumption measured as morphine milligram equivalents (MME). Statistical analysis was performed using ANOVA, Fischer's exact test, or χ^2 test when appropriate. P < 0.05 was considered significant.

Results: Of the 175 patients who received a QLB after cesarean delivery, 144 patients (82.3%) met inclusion criteria. 45 patients (31.2%) had a BMI < 30 kg/m² and 99 patients (68.8%) had a BMI ≥ 30 kg/m². Patient demographics were comparable between the two groups, except for age (29.7 ± 6.3 vs. 31.9 ± 4.8 , $p=0.022$) and duration of cesarean delivery, in min (60.6 ± 19.6 vs. 71.5 ± 27.0 , $p=0.017$). There was no significant difference in the opioid request rate nor median time to first rescue opioid between the control and study groups. Analysis of median MME consumed revealed no significant difference between the two groups.

Conclusion: Our results suggest that obesity does not result in significantly increased opioid consumption following QLB for women who have undergone cesarean delivery. Quadratus lumborum blocks should be encouraged in obese patients and future clinical trials studying QLB should include patients with greater BMI.