

Gabapentin in post cesarean pain management

Presenting Author	Oluchi Nwosu, B.A., M.S., Medical Student, Department of Obstetrics and Gynecology, Tulane University, New Orleans, LA
Co-authors	William Choi, M.D., Department of Obstetrics and Gynecology, Tulane University, New Orleans, LA; Dionne Drakulich, M.D., Department of Obstetrics and Gynecology, Tulane University, New Orleans, LA; Avani Patel, B.S., School of Medicine, Tulane University, New Orleans, LA; Kayla Street, B.S., School of Medicine, Tulane University, New Orleans, LA; Victoria Weprinsky, B.A., School of Medicine, Tulane University, New Orleans; Stacey Tran, B.S., School of Medicine, Tulane University, New Orleans, LA; Leigh Malum, School of Medicine, Tulane University, New Orleans, LA; Amanda Wang, School of Medicine, Tulane University, New Orleans, LA; Chi Dola, M.D., MPH, Department of Obstetrics and Gynecology, Tulane University, New Orleans, LA
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Abstract

Background: To determine whether adding gabapentin to standard post cesarean delivery (CD) pain regimen would decrease overall opioid usage.

Methods: Retrospective chart review on data from women who underwent CD January - May 2018. Patients who received general anesthesia for CD, had contraindications to NSAIDs, or history of opioid dependence were excluded. Primary outcomes assessed include quantity of opioids administered both during hospital stay and on discharge. Chi-square and Student's t-test were performed with $p < 0.05$ being significant.

Results: 203 patients who underwent cesarean delivery were identified; 116 patients (57.1%) received gabapentin postoperatively with a mean \pm SD of 1,931.9 mg \pm 557.1 in doses of 300 mg tablet every 8 hours. 87 patients (42.9%) did not receive gabapentin. All patients received a combination of NSAIDs, acetaminophen, and narcotics for pain. Narcotics were converted to morphine equivalents for analysis. Compared to women who did not receive gabapentin, those who did used less acetaminophen (5,041 \pm 1706.2 mg vs 3,939.2 \pm 2798.3 mg, respectively; $p < 0.05$) and less morphine equivalents (141.6 \pm 176.6 mg vs 96.3 \pm 63.4 mg, respectively; $p < 0.05$). There was no statistically significant difference in usage of ibuprofen between groups (5195.2 \pm 1504.1 mg vs 4,945.6 mg \pm 3,009.0 mg, $p = \text{NS}$) or reported pain scores (4.0 \pm 1.5, 4.5 \pm 1.4, 4.5 \pm 1.7 versus 4.1 \pm 1.6, 4.2 \pm 1.4, 4.1 \pm 1.5; day 1, day 2, day 3 respectively, $p = \text{NS}$). Quantity of prescribed narcotic tablets at discharge were statistically lower in the gabapentin group (19.9 \pm 7.7 versus 24.7 \pm 6.1; $p < 0.001$).

Conclusion: The addition of gabapentin to standard post CD pain regimen decrease the overall opioid usage without increasing the pain scores, but may be underutilized due to physician education and recent changes in opioid prescribing practice.

Learning Objectives

1. Discuss the prevalence of persistent opioid use among opioid-naive women who underwent cesarean delivery.
2. Discuss the magnitude of this problem as there is a high prevalence of cesarean delivery in the United States
3. Discuss the mechanism of action of Gabapentin in post surgery pain management