Ibuprofen Does Not Increase Blood Pressure in Preeclampsia

Sofia Costas  
Providence St. Joseph Health, sofia.costas@providence.org

Sherry Hutton  
Providence St. Joseph Health, sherry.hutton@providence.org

Cindy Kenyon  
Providence St. Joseph Health, cindy.kenyon@providence.org

Follow this and additional works at: https://digitalcommons.psjhealth.org/stvincent-bootcamp

Part of the Nursing Commons

Recommended Citation  
Costas, Sofia; Hutton, Sherry; and Kenyon, Cindy, "Ibuprofen Does Not Increase Blood Pressure in Preeclampsia" (2018). Nursing Boot Camp Posters. 5.  
https://digitalcommons.psjhealth.org/stvincent-bootcamp/5

This Book is brought to you for free and open access by the St. Vincent Medical Center, Portland, OR at Providence St. Joseph Health Digital Commons. It has been accepted for inclusion in Nursing Boot Camp Posters by an authorized administrator of Providence St. Joseph Health Digital Commons. For more information, please contact digitalcommons@providence.org.
Ibuprofen Does Not Increase Blood Pressure in Preeclampsia

Sofia Costas, BSN, RNC, Sherry Hutton, BSN, RN & Cindy Kenyon, BSN, RNC

Providence St. Vincent Medical Center, Portland, Oregon

Background

In 2013, The American College of Obstetricians and Gynecologists (ACOG) made a recommendation to withhold Ibuprofen in postpartum Preeclamptic women.

The U.S. is currently confronted with a growing narcotic dependence and the ability to use alternative analgesic methods is imperative in reducing narcotic use.

Chang A Et al (2017) reported better pain reduction with a combination of ibuprofen and acetaminophen than with narcotics.

The benefit of Ibuprofen in the postpartum period is paramount in managing pain, decreasing swelling and helping reduce muscle aches and uterine cramping. When combined with acetaminophen, it is a viable non opioid alternative for acute pain control.

Current literature reports that Ibuprofen is safe in most postpartum Preeclamptic patients (exceptions include patients with elevated serum AST, ALT >200mg/dL & serum creatinine >1.0mg/dL).

Methods

IRB approved study of patients delivered between 12/30/2016 and 12/31/2017. Total sample of 633 patients who had severe blood pressure (BP ≥ 160/105) during their hospital stay.

Inclusion criteria: Preeclampsia diagnosis, postpartum magnesium infusion, with treated severe range blood pressures in postpartum (BP ≥ 160/105). N=169, 66 received ibuprofen, 103 did not.

A retrospective chart audit was completed on 44 randomly selected Preeclamptic postpartum patients. Data collected included 22 patients who received ibuprofen and 22 patients who did not.

Mean arterial pressures (MAP) were compared in women who received ibuprofen versus who did not receive ibuprofen. A baseline was obtained at 2 hours postpartum. Patient blood pressures from each 24 hour interval were averaged.

The MAPs of the two groups of patients were then compared at the following intervals: 24, 48, 72 and >96 hours. The MAP for each group at these intervals were compared using t-tests to determine statistical significance.

Results

Results were obtained by comparing a MAP point difference from the baseline. When patient’s who DID receive Ibuprofen were compared with patient’s who did NOT receive Ibuprofen, the results indicated no significant changes from baseline. (See Figure 1.)

When comparing the average overall MAP pressures between the two groups of patients, there was no significant increase in blood pressures at the following time intervals: 24, 48, 72 and > 96 hours. (See Figure 2.)

Discussion/Conclusions

In conclusion, our data collection results revealed that there was not a significant increase in MAP for Preeclamptic patients who receive Ibuprofen in the postpartum period which is consistent with current literature.

Key limitations of this retrospective chart audit include the limited number of patients obtained for the project. There were many patients available to audit, but the data extraction process was extremely time consuming.

The implications of practice with the ability to use Ibuprofen following the birth will reduce narcotic dependence, provide excellent pain control specific to the postpartum period, and be safe to use in regards to not elevating blood pressures in women with Preeclampsia.

Next steps: PSCU will be implementing the new practice of administering Ibuprofen to postpartum patients with Preeclampsia who meet criteria.

References


