The most notable contribution of this study was the discovery of the adverse effects of the continuous pain pump, ON-Q. Patients treated with this modality had decreased ambulation on postoperative day one and on average remained in the hospital one extra day, a variable that significantly increases the cost of a total knee arthroplasty for the hospital, the surgeon and the patient” O’Neil et al (2018).

Abstract:

PURPOSE: The purpose of this study was to evaluate immediate postoperative pain control modalities after total knee arthroplasty at the author’s specific institution and compare those modalities with patient satisfaction, rehabilitation status, and length of hospital stay.

METHODS: A retrospective chart review of 101 patients who underwent total knee arthroplasty from 2013 to 2016 was performed. Data was collected including the pain control modality, total pain medication consumption, physical therapy progress, length of hospital stay and Visual Analog Scores. Analysis was then performed using SAS proprietary software. Results were reported as statistically significant if p value was less than 0.05.

RESULTS: Multiple variables proved to be statistically significant (p value <0.05) in this particular study. Patients who received Valium required more morphine equivalents on average and reported higher Visual Analog Scores (VAS). For those patients who received a lower extremity nerve block pre operatively, there was a decrease in morphine equivalents on postoperative day one and lower VAS. For those patients who received the continuous pain pump, ON-Q postoperatively, there was an average increase in length of hospital stay by one day and a decrease in ambulation on postoperative day one. Also, females required less overall pain medication on postoperative days two and three compared to their male counterparts. Finally, there was no statistically significant difference for those patients who received Lyrica (pregabalin) or NSAIDS for the parameters that were measured in this study.

CONCLUSIONS: Postoperative pain control modalities after total knee arthroplasty are highly variable among physicians. This variability has allowed researchers to review each
modality and compare and contrast the benefits with the potential adverse effects of these medications on total knee replacement outcomes. The data in this study suggests that the use of Valium is correlated with increased pain medication consumption and decreased patient satisfaction. Data from this study also reveals that patients who underwent preoperative nerve blocks experienced decreased pain on postoperative day one and greater patient satisfaction. The most notable contribution of this study was the discovery of the adverse effects of the continuous pain pump, ON-Q. Patients treated with this modality had decreased ambulation on postoperative day one and on average remained in the hospital one extra day, a variable that significantly increases the cost of a total knee arthroplasty for the hospital, the surgeon and the patient. Even though this data is significant, further studies should be performed to enhance our knowledge of postoperative pain control for these patients.

Reference:


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