

Intravenous parecoxib provides similar analgesic efficacy to a single shot sciatic nerve block after total knee arthroplasty when combined with a continuous femoral nerve block.

Nuj Tontisirin M.D.* , Theerawat Chalacheewa M.D.* , Suwimolwadee Saipimpong M.D.* , Sirima Kumdang*B.N.S., Rojnarin Komonhirun*M.Ed., De QH Tran, MD, FRCPC[§] , Roderick J Finlayson, MD, FRCPC[§]

*Department of Anesthesiology, Faculty of Medicine Ramathibodi hospital, Mahidol University, Bangkok, Thailand.

§ Montreal General Hospital, Department of Anesthesia

McGill University, Montreal, Canada

Abstract

Background: Continuous femoral nerve blockade has become an accepted modality in the management of pain after total knee arthroplasty, however posterior knee pain can be problematic and often requires additional forms analgesia. This study compared the use of parental parecoxib to single shot sciatic block for this purpose.

Material and method: After ethics review board approval, adults undergoing total knee arthroplasty were randomly allocated to 3 groups; Group 1(Gr-F+S) had a single shot sciatic nerve block with 0.25% bupivacaine 25 ml in addition to continuous femoral analgesia (CFA) (0.125% bupivacaine 7 ml/hr), Group 2 (Gr-F+P) received parenteral parecoxib 40 mg q 12 hrs with CFA and Group 3(Gr-F) had only CFA. Assessment was performed at 0, 6, 12, 24 hour after surgery and included NRS (numerical rating score) at rest, morphine use, time to first analgesic dose and side effects.

Result: Seventy-eight patients were enrolled with 26 participants in each of the 3 groups. Morphine requirements in the first 24 hours were significantly increased in Gr-F (17 ± 12 mg) when compared to Gr-F+S (10 ± 7 mg) and Gr-F+P (9 ± 5 mg). ($p < 0.001$). Time to first analgesic dose was shorter in Gr-F (3 ± 2 hr) than Gr-F+S (6 ± 2 hr) and Gr-F+P (6 ± 2 hr). There were no inter-group differences in pain (NRS), side effects or patient satisfaction.

Conclusion: Parental parecoxib had similar analgesic efficacy to single shot sciatic nerve block as an adjunct to continuous femoral nerve blockade after total knee arthroplasty.