

A Comparison of Quadratus Lumborum Block and Peri-articular Injection for Analgesia Following Total Hip Arthroplasty

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Study Design: Retrospective cohort study

Background: Multimodal pain management strategies including peripheral nerve blocks (PNB) and peri-articular injections (PAI) are commonly employed to decrease opioid use, facilitate patient mobilization, and decrease length of stay. Quadratus lumborum blocks (QLB) have emerged as a potential motor sparing PNB, despite limited information regarding their effectiveness. This study compares QLB to PAI efficacy for analgesia following primary total hip arthroplasty.

Methods: A retrospective cohort study of 161 primary THA patients treated by two surgeons at a single institution. Cohorts differed in whether they received single-shot QLB or PAI with ropivacaine and morphine. Data collected included visual analogue scale (VAS) scores, narcotic use (morphine equivalents, MEs), length of stay (LOS), and performance with physical therapy, during the first 24 hours post-operatively.

Results: Patients receiving PAIs had significantly lower opioid use in the first 8 and 24 postoperative hours when compared to those receiving QLBs (MEs at 8 hours - 20.7 vs 29.0mg; $p=0.007$, and 24 hours - 55.3 vs 70.7mg; $p=0.049$). The number of missed or shortened physical therapy sessions due to pain was also less frequent in the PAI group (15.5 vs. 34.4 sessions missed; $p=0.007$). The groups were not different with respect to age, gender, body mass index, ASA grade, or Charlson Comorbidity Index.

Conclusion: PAIs may reduce opioid consumption and decrease missed physical therapy sessions when compared to QLB. This study suggests PAIs are at least as effective as QLB in controlling postoperative pain, and enabling more consistent participation in physical therapy following total hip arthroplasty.

Level of Evidence: Level 4