



Is periarticular injection superior to intraarticular injection to reduce postoperative pain following total knee arthroplasty?

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The use of intraarticular (IA) injections in the treatment of osteoarthritis (OA) has gained wide popularity in recent years. The relatively low cost, rapid and simple method of pain relief are its main advantages.^[1] However, the majority of the articles have reported insufficient sample size with a varying follow-up period, resulting in difficulty in formulating and implementing clinical recommendations. Therefore, the true extent of the benefits of IA injections is still being debated.

One of the most significant achievements in orthopedic surgery in the 20th century was the

introduction and further development of total knee arthroplasty (TKA) in the treatment of OA.^[2] The main goals after TKA are to reduce the postoperative pain, to diminish the transfusion need, and to ensure the ability for early ambulation.^[3,4]

Despite the literature support for local infiltration analgesia (LIA) use following TKA, the most optimal location for injection of the analgesic cocktail intraarticular (IA) versus periarticular (PA) versus combined IA+1PA is still unclear.^[5] Mortazavi et al.^[5] concluded that PA was associated with less postoperative pain and greater active knee flexion compared to the other two analgesic options following TKA.

Perret et al.^[6] demonstrated that PA injection following TKA showed a statistically significant reduction in postoperative Visual Analog Scale pain scores with a trend in that group toward reduced overall opioid use. Cheng et al.^[7] concluded that PA injection was superior for pain relief and improved range of motion over IA injection following TKA. Therefore, the authors recommended the administration technique of PA injection while performing LIA after TKA. In a recent meta-analysis, strong evidence supports the use of a PA injection with a long-acting local anesthetic to reduce postoperative pain and opioid consumption following TKA. Addition of a corticosteroid and/or ketorolac to a long-acting local anesthetic further reduces postoperative pain, thereby possibly reducing opioid consumption.^[8]

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In conclusion, recent literature supports the use of a PA injection with a long-acting local anesthetic to reduce postoperative pain and opioid consumption following TKA.

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