

# A COMPARISON OF CONTINUOUS LOCAL ANAESTHESIA INFUSION AND PARENTERAL NARCOTICS FOLLOWING WIDE RESECTION SURGERY OF SOFT TISSUE TUMORS: A PRELIMINARY STUDY

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**Introduction:** The objective of this study was to compare postoperative pain, side effects, cost-effectiveness and satisfaction in musculoskeletal soft tissue tumor patients who underwent wide resection surgery using continuous local anesthetic infusion (ON-Q pump) or parenteral opioid using patient-controlled analgesia pump (PCA).

**Methodology:** Thirty-seven musculoskeletal soft tissue tumor patients who underwent elective wide resection surgery from February 2017 to January 2019 were divided into two groups. One group received ON-Q pump with bupivacaine 0.25% (5mls/hour) into the suprafascial layer of the surgical wound. The other group received morphine using patient-controlled analgesia pump (PCA) with 1mg bolus without basal flow. The lockout period was set at 5 minutes. Both groups received oral celecoxib 200mg BID and oral Paracetamol 1gm QID as part of multimodal analgesia regime. Postoperative pain was assessed at selected hours after surgery at rest and during movement using a visual analogue scale. Possible side effects of opioid and local anaesthetic, days of hospitalisation, day of starting ambulation and satisfaction were observed and compared.

**Discussion:** Overall, ON-Q group showed better scores from 24 hours after surgery onwards compare PCA group but not statistically significant ( $P>0.05$ ). Location of the tumor did not affect the outcome of pain score; however, the type of tumor had significant differences in pain scores ( $p<0.05$ ). Generally, ON-Q group had earlier return of bowel function, earlier mobilisation status, shorter hospital, and higher satisfaction status, but these were not statistically different. However, ON-Q group had experienced no adverse drug effect meanwhile PCA group had significant nausea symptom on morphine usage ( $P=0.007$ ).

**Conclusion:** Continuous local anaesthetic wound infusion provides postoperative pain control as good as gold standard intravenous opioid with proven less adverse effect, safety, and efficacy. Both groups, however, do not show superiority in managing nerve and vascular in origin pain.