

Peripheral Neuropathy after Locoregional Anesthesia

Authors : Dalila Chaid, Benameur Fedilli, Mohammed Amine Bellelou

Abstract : The study focuses on the experience of lower-limb amputees, who face both physical and psychological challenges due to their disability. Chronic neuropathic pain and various types of limb pain are common in these patients. They often require orthopaedic interventions for issues such as dressings, infection, ulceration, and bone-related problems. **Research Aim:** The aim of this study is to determine the most suitable anaesthetic technique for lower-limb amputees, which can provide them with the greatest comfort and prolonged analgesia. The study also aims to demonstrate the effectiveness and cost-effectiveness of ultrasound-guided local regional anaesthesia (LRA) in this patient population. **Methodology:** The study is an observational analytical study conducted over a period of eight years, from 2010 to 2018. It includes a total of 955 cases of revisions performed on lower limb stumps. The parameters analyzed in this study include the effectiveness of the block and the use of sedation, the duration of the block, the post-operative visual analog scale (VAS) scores, and patient comfort. **Findings:** The study findings highlight the benefits of ultrasound-guided LRA in providing comfort by optimizing post-operative analgesia, which can contribute to psychological and bodily repair in lower-limb amputees. Additionally, the study emphasizes the use of alpha2 agonist adjuvants with sedative and analgesic properties, long-acting local anaesthetics, and larger volumes for better outcomes. **Theoretical Importance:** This study contributes to the existing knowledge by emphasizing the importance of choosing an appropriate anaesthetic technique for lower-limb amputees. It highlights the potential of ultrasound-guided LRA and the use of specific adjuvants and local anaesthetics in improving post-operative analgesia and overall patient outcomes. **Data Collection and Analysis Procedures:** Data for this study were collected through the analysis of medical records and relevant documentation related to the 955 cases included in the study. The effectiveness of the anaesthetic technique, duration of the block, post-operative pain scores, and patient comfort were analyzed using statistical methods. **Question Addressed:** The study addresses the question of which anaesthetic technique would be most suitable for lower-limb amputees to provide them with optimal comfort and prolonged analgesia. **Conclusion:** The study concludes that ultrasound-guided LRA, along with the use of alpha2 agonist adjuvants, long-acting local anaesthetics, and larger volumes, can be an effective approach in providing comfort and improving post-operative analgesia for lower-limb amputees. This technique can potentially contribute to the psychological and bodily repair of these patients. The findings of this study have implications for clinical practice in the management of lower-limb amputees, highlighting the importance of personalized anaesthetic approaches for better outcomes.

Keywords : neuropathic pain, ultrasound-guided peripheral nerve block, DN4 quiz, EMG

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