

Postoperative analgesia with the use of peripheral nerve block of the foot and ankle

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Introduction/Purpose: Peripheral nerve block in the foot and ankle is usually used for anesthesia in forefoot and midfoot surgeries. However, since the postoperative analgesia obtained is prolonged, we can expand its use, as an adjuvant after the end of the spinal or general anesthesia. The aim of this study was to evaluate the use of peripheral nerve block of the foot and ankle as a method of postoperative analgesia.

Methods: A prospective, randomized, blinding study was performed. The study group included 30 patients (32 feet) submitted to peripheral anesthetic block after surgery with spinal anesthesia and the control group (30 patients, 31 feet) were patients not submitted to nerve block. The inclusion criterion was: patients submitted to foot and ankle surgery at our institution. Patients answered the questionnaire postoperatively, with the measurement of pain intensity by the Visual Analog Scale (VAS) and the time of onset of pain. All local peripheral block was performed by the same orthopedic team with 20mL of Ropivacaine at a concentration of 7.5mg / mL (0.75%).

Results: The mean patient age was 52,5 years, and the majority of patients were women (66%). The results showed a statistically significant difference between the control group and the study group, with a longer time of postoperative analgesia ($p < 0.001$) and lower pain intensity in the immediate postoperative period ($p < 0.001$) in patients submitted to blockade anesthetic. There was no statistical difference between the two groups regarding pain intensity on the first and second postoperative day.

Conclusion: In the study group, the mean postoperative pain (six hours after surgery) was lower when compared to the control group, with statistical significance. This result showed that the ankle block helped to control pain, in a safe and effective mode. The use of ropivacaine presents a sensitive block similar to bupivacaine, but with shorter motor block, allowing early initiation of rehabilitation.

The study demonstrated that peripheral nerve block in the foot and ankle region can be used effectively in postoperative analgesia, reducing pain intensity in the immediate postoperative period and also prolonging analgesia and thus maximizing physiotherapy postoperative period.