

Duration of Relief of Diagnostic Genicular Nerve Block for Chronic Knee Pain

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Introduction

Genicular nerve blocks (GNB) have become an important treatment option for patients with refractory knee pain. The blocks are commonly performed to be diagnostic, with local anesthetic only. This pilot project evaluated the efficacy of relief as well as the duration of relief of GNB with local anesthetic for refractory knee pain.

Materials and Methods

After local IRB approval, 20 subjects enrolled and underwent GNB (superior medial, superior lateral and inferior lateral) with 0.25% bupivacaine. Pain scores, visual analogue scale (VAS), were collected at pre and post procedure. At 24 hours, 2 weeks, and 6 weeks, maximum percent pain relief, duration of pain relief, VAS score, and about any side effects were collected.

Results

20 subjects were followed in this study, 15 (75%) females and 5 males (25%). 15 (75%) subjects had >50% pain relief in the first 24 hours after the procedure. At 24 hours, those with <50% pain relief had an average pain relief of 24% for 11.2 hours. Those with >50% pain relief at 24 hours had 81% pain relief for 17.2 hours on average. At two weeks, this subgroup had 74% pain relief for 7 days on average and 69% pain relief for 18.7 days at 6 weeks. All subjects had an average age of 60, average BMI of 36.9, and average Kellgren Lawrence Score of 2.7.

Discussion

75% of the patients noted >50% relief of the chronic knee pain in the first 24 hours. The average duration of relief of diagnostic GNB with bupivacaine resulted > 2 weeks duration of relief >50%, with most experiencing minimal change in the pain relief duration the 2-week duration. Diagnostic GNB with bupivacaine provides longer relief than expected from the local anesthetic duration.

References

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