NERVE BLOCKS FOR NEUROPATHIC PAIN

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Introduction: Sympathetic ganglion blocks are the standard nerve blocks for neuropathic pain. However, these blocks are not consistently successful [1, 2, 3, 4, 5] According to Bonica, in the hands of experts, these blocks are technically successful in no more than 75% of patients [1]. Such blocks usually last for a short period of time (from hours to days). As such, these blocks are more diagnostic than therapeutic.

Methods: Comparative study of the diagnostic and analgesic values of nerve blocks was done. Four groups of 100 patients were studied for the efficacy of sympathetic, epidural, regional (BIER), and plexus blocks. The regional temperature was measured with Bales Scientific Infrared Imaging Thermography.

Results: Sympathetic nerve blocks: These nerve blocks were effective in the first few months' post- injury lasting an average of 11 days. The technical success of sympathetic blocks was rated at 72%. The success rate of warming up of the extremity and pain relief was reduced by an average of 11±2 days in 41% of patients. This is in contrast to the other types of blocks lasting more than nine weeks (Table).

Epidural blocks containing Depo-Medrol® were successful in 89% of patients.

The regional BIER blocks showed an average success rate of 32%.

The brachial plexus blocks showed 63% success in regards to analgesia and hyperthermia.

Conclusion: The sympathetic nerve blocks are more diagnostic than therapeutic in nature. Epidural, regional, and plexus blocks containing corticosteroids provide more effective and longer lasting pain relief.

Keywords: Nerve Blocks, Sympathetic Blocks, Neuropathic Pain, Regional Blocks, Plexus Blocks, Bier Blocks

Table

Comparison of Nerve Blocks

Type of Nerve Block	Duration of Pain Relief
Sympathetic Ganglion Block	11 ± 2 days
Epidural Steroid Block	9 ± 5 weeks
Regional Bier Block	2 ± 1 weeks
Brachial Plexus Block	8 ± 2 weeks

References:

1. Bonica JJ: The Management of Pain. Lea & Feibger Philadelphia. 1990; Vol. 1: p 229.

2. Carr DB, Cepeda MS, Lau J: What is the evidence for the therapeutic role of local anesthetic sympathetic blockade in RSD or causalgia? An attempted meta-analysis [abstract] Eighth world congress on pain, Vancouver, August 17-22 1996., Seattle: IASP Press . 1996; 406.

3. Hooshmand, H, Hashmi, M, Phillips, EM: Infrared Thermal Imaging As A Tool In Pain Management- An 11 Year study", Part II: Clinical Applications, Thermology International. Vol 11: no 3, August 2001.

4. Kozin F: Reflex sympathetic dystrophy: a review. Clin Exp Rheumatol. 1992; 10: 401-9.

5. Schott GD: Interrupting the sympathetic outflow in causalgia and reflex sympathetic dystrophy. A futile procedure for many patients. BMJ. 1998; 316: 792-3.

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