Cervical postsurgery syndrome

Cervical postsurgery syndrome is common with increasing cervical surgical interventions. Cervical spine surgery may fail in a certain proportion of patients with continued pain secondary to pseudoarthrosis, adjacent segment degeneration, inadequate decompression, iatrogenic instability, facet joint arthritis, deformity, and cervical spinal stenosis. Among the various treatments available for managing cervical postsurgery syndrome, epidural steroid injections are one of the most common nonsurgical interventions. However there have not been any systematic evaluations regarding the effectiveness of cervical epidural injections in cervical postsurgery syndrome.

A systematic review with qualitative best evidence synthesis shows Level II evidence for the efficacy of cervical interlaminar epidural injections with local anesthetic with or without steroids, based on at least one high-quality relevant randomized control trial in each category for disc herniation, discogenic pain without facet joint pain, central spinal stenosis, and cervical postsurgery syndrome [1)].

Randomized, double-blind, active control trial

Setting: A specialty referral, private interventional pain management practice in the United States.

Objectives: To evaluate the effectiveness of cervical interlaminar epidural injections of local anesthetic with or without steroids in providing effective and long-lasting relief in the management of chronic neck pain and upper extremity pain in patients with cervical postsurgery syndrome, and to evaluate the differences between local anesthetic with or without steroids.

Methods: Patients were randomly assigned to one of 2 groups: Group I patients received cervical interlaminar epidural injections of local anesthetic (lidocaine 0.5%, 5 mL); Group II patients received cervical interlaminar epidural injections with 0.5% lidocaine, 4 mL, mixed with 1 mL of nonparticulate betamethasone. The study was designed to include 120 patients with 60 patients in each group. This analysis includes 56 patients. Randomization was performed by computer-generated, random allocation sequence by simple randomization.

Outcomes assessment: Outcome measures included the Numeric Rating Scale (NRS), the Neck Disability Index (NDI), employment status, and opioid intake. Assessments at baseline and 3, 6, and 12 months posttreatment. Significant pain relief was defined as 50% or more; significant improvement in NDI was defined as a reduction of 50% or more.

Results: Significant pain relief (>/= 50%) was demonstrated in 71% of patients in Group I and 68% of patients in Group II. Functional status improvement was demonstrated by a reduction (> 50%) in the NDI scores in 71% of Group I and 64% of Group II at 12 months. The overall average procedures per year were 4.0 ± 0.7 in Group I and 4.1 ± 1.0 in Group II; the average total relief per year was 39.6 ± 11.8 weeks in Group I and 41.2 ± 15.8 weeks in Group II over the 52 week study period in the patients defined as successful. In the successful group, the combined pain relief and neck disability improvement was seen in 87% in Group I and 72% of the patients in Group II.

Limitations: The study results are limited by the lack of a placebo group and a preliminary report of 56

patients, 28 in each group.

Conclusion: Cervical interlaminar epidural injections with local anesthetic with or without steroids were effective in 67% of patients overall and 87% in Group I and 72% in Group II, in successful group patients with chronic function-limiting neck pain and upper extremity pain secondary to cervical postsurgery syndrome [2].

1)
Manchikanti L, Nampiaparampil DE, Candido KD, Bakshi S, Grider JS, Falco FJ, Sehgal N, Hirsch JA. Do Cervical Epidural Injections Provide Long-Term Relief in Neck and Upper Extremity Pain? A Systematic Review. Pain Physician. 2015 Jan-Feb;18(1):39-60. PubMed PMID: 25675059.
2)
Manchikanti L, Malla Y, Cash KA, McManus CD, Pampati V. Fluoroscopic cervical interlaminar epidural injections in managing chronic pain of cervical postsurgery syndrome: preliminary results of a randomized, double-blind, active control trial. Pain Physician. 2012 Jan-Feb;15(1):13-25. PMID: 22270734.