The Benefit of Therapeutic Medial Branch Blocks after Cervical Operations

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Introduction:
Persistent neck pain is a common problem after surgery of the cervical spine. No therapy recommendation exists for these patients. The objective of this study was to determine if therapeutic medial branch block are a rational treatment for patients with postoperative neck pain after cervical spine operations.

Cervical medial branch blocks are a diagnostic procedure designed to test if a patient's pain is mediated by one or more of the medial branches of the cervical dorsal rami. But there are systematic reviews reporting strong evidence of relief of neck pain when treated with therapeutic medial branch blocks. Among patients after cervical surgery most likely inflammatory processes play a role because of an initial stress to the joints. Therefore this therapy was adapted to patients with postsurgical neck pain.

Material & Methods:
Review of charts of all patients who underwent cervical spine operations during a time period of 3 years. Patients with persistent postsurgical pain were treated with therapeutic medial branch blocks (local anaesthetic and steroid). Positive treatment response was defined for at least 80% reduction of pain or sufficiently satisfaction of the patient.

Results:
312 operations were performed, 128 of which were artificial disc operations, 125 were stand alone cages, and 59 were fusions with cage and plate. Persistent neck pain occurred in 33.3% of the patients. There was no difference between the patients with neck pain and the whole group of patients. 56.7% of the patients with neck pain were treated successfully with therapeutic medial branch blocks. 28.9% of the patients were treated initially successful but the pain recurred. In this group of patients significantly more patients with double level operations were found (P = 0.009). 14.4% of the patients did not respond to the medial branch block.

Examples:
A: Medial branch block in a patient with two artificial discs. The level cranial to the operation was tested. B: Patient with a Fusion and an artificial disc (not included in the study). Remarkable is the ventral ossification of the artificial disc.

Conclusions:
The facet joints are an important source of pain. Patients with post-operative neck pain should be treated in a first instance with therapeutic medial branch blocks. The success rate is 52.9%. No other therapy recommendations exist.

Literature: