

Ulnar Nerve Decompression in Cubital Tunnel Syndrome – Open In Situ Decompression Versus Endoscopic Decompression

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Summary:

Endoscopic decompression of the ulnar nerve in cubital tunnel syndrome leads to comparable results compared to open in situ decompression.

Abstract:

Aim:

The purpose of this study was to evaluate the results after decompression of the ulnar nerve. Are the results of endoscopic treatment comparable to open in situ decompression?

Method:

30 patients with clinically and electrophysiologically proved Cubital Tunnel Syndrome were scheduled for operative treatment. After randomization 15 patients were treated with open in situ decompression, 15 patients were operated using an endoscopic technique. In these cases the ulnar nerve is identified via an approximately 2cm wide incision in the cubital tunnel. The next steps of the procedure are performed endoscopically distally (up to 15cm distal of the cubital tunnel) and proximally (approx. 10cm proximal of the cubital tunnel). A transposition of the nerve was not necessary in the endoscopic group; in the open group one subcutaneous transposition was performed. Patients were followed prospectively after 10days, 3 and 12 months clinically and electrophysiologically. The results were analysed according to the Dellon classification and the postoperative results according to the modified Bishop classification and patient satisfaction. Comparison between open and endoscopic results was statistically analysed by parametric method, using 2-tailed t test. The level of significance was set up at $p < 0.05$.

Results:

13 patients in the open group and 14 patients in the endoscopic group could be completely evaluated. All patients showed a clinical improvement compared to the preoperative situation. The modified Bishop Score revealed at last follow up in the open group 6 very good, 6 good and 1 satisfying result, in the endoscopic group 8 very good and 6 good results. In the endoscopic group one superficial hematoma was noted that did not require a revision. Functional improvement was quicker in the endoscopic group. 12 patients in the open group and 14 patients in the endoscopic group were satisfied with the postoperative result and would choose surgery again.

Discussion:

The endoscopic decompression of cubital tunnel syndrome leads to comparable results to open in situ decompression after 12 months.