

Carpal Tunnel Release Combined with Radiofrequency Therapy for Faster Healing and Reducing the Pain

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INTRODUCTION: Carpal tunnel syndrome has many conservative and surgical treatment methods. (1) This study presents a novel treatment combination in carpal tunnel syndrome cases as a prospective, double-blinded, randomised controlled trial.

MATERIAL AND METHOD: We included 24 patients who had “severe carpal tunnel syndrome” findings in their EMG results. We included only one hand of all patients. These 24 patients were randomly divided into two groups. First group had only conventional carpal tunnel operation. Second group was treated with the carpal tunnel operation combined with radiofrequency therapy. In this group, after releasing the median nerve, median nerve was ablated with pulse radiofrequency (routinely 20 ms current and 480 ms without current) for 360 seconds with an output of 45V and the temperature at the tip of electrode was 42 degrees from proximal part of the lesion. (Figure 1) QuickDASH score was applied patients preoperatively, postoperatively third month, sixth month and first year. The two groups were compared with QuickDASH score.

RESULTS: Control group and radiofrequency group had statistically significant difference in third month DASH score. ($p<0,05$) Both groups had no difference in sixth and first year QuickDASH scoring. ($p>0,05$)

CONCLUSION: The results show that, patient relief is significantly better in the combined therapy group in the early period. Also the less pain in the early postoperative period render possible the painless, early and effective hand rehabilitation. So we recommend the radiofrequency combined surgery to the professional musicians or athletes who have to start to use his/her hand quickly and without pain.

REFERENCE:

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FIGURE LEGENDS:

Figure 1. Radiofrequency ablation for median nerve

