

# Effectiveness of Pelotherapy in carpal tunnel syndrome

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Carpal tunnel syndrome (CTS) is the most common neuromuscular cause of upper extremity disability. We aimed to investigate the effectiveness of peloid therapy in patients with CTS. This randomized, controlled, single-blind study enrolled 70 patients between the ages of 30 to 65 who had a diagnosis of either mild, mild-to-moderate, or moderate CTS. The patients were randomized into two groups using random number table. In the first group, (Group 1) (n = 35), patients were given splint (every night for 6 weeks) + peloid treatment (five consecutive days a week for 2 weeks) and in the second group, (Group 2) (n = 28), patients received splint treatment (every night for 6 weeks) alone. The patients were assessed by using visual analog scale (VAS) for pain, electroneuromyography (ENMG), the Boston Carpal Tunnel Syndrome Questionnaire (BCTSQ), hand grip strength (HGS), finger grip strength (FGS), and Short Form-12 (SF-12). The data were obtained before treatment (W0), immediately after treatment (W2), and one month after treatment (W6). Both in Group 1 and 2, there was a statistically significant improvement in all the evaluation parameters at W2 and W6 when compared to W0 ( $p < 0.05$ ). Comparison of the groups with each other revealed significantly better results for VAS, BCTSQ, mSNCV, SF-12 in Group 1 than in Group 2 at W2 ( $p < 0.05$ ). There was also a statistically significant difference in favor of Group 1 for VAS, BCTSQ, FGS and MCS at W6 when compared to W0 ( $p < 0.05$ ). The results of our study demonstrated that in patients with CTS; peloid + splint treatment was more effective than splint treatment alone in pain, functionality and life quality both at after treatment (W2) and one month after treatment (W6). We may suggest peloid as a supplementary therapeutic agent in CTS.

**Keywords** Carpal tunnel syndrome, Pelotherapy, Mud-pack, Splint therapy, Electroneuromyography