

Comparative study of shock wave therapy and low level laser therapy effects in patients with myofascial pain syndrome of the trapezius

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Objective. Neck pain is a very frequent locomotor symptom with an estimated global prevalence interval of 5.9%-to 38.7%. Most frequently, pain is due to myofascial syndrome. The aim of our work was the comparison of the pain relieving effect and the influence on patient quality of life of trigger points shock wave therapy and laser therapy in patients suffering from neck myofascial pain syndrome.

Methods. In this randomised single-blinded study patients in the laser group (31 patients out of 61) were treated by soft laser once daily in a 3-week period for a total of 15 occasions while patients in the shock wave group (30 patients out of 61) were treated once in a week in an also 3-week period, for a total of 3 shock wave treatments.

Results. Pain at rest was significantly decreased in both groups at the 3rd week and 3rd month; post treatment the shockwave group benefitted more (1,030, 95%CI: -8,116-10,176), while at the 3rd month patients of the laser group demonstrated significantly higher benefits compared to the other group (-1,345, 95%CI: -14,600-11,910). Pressure pain (pain threshold) was also significantly decreased in both groups during the visits. Patients treated with shockwave therapy demonstrated a significantly higher decrease in the 3rd week (4,078, 95%CI: -7,135-15,292) and the 3rd month, too (9,561, 95%CI: 3,056-22,179). The impairment of neck functions decreased significantly in both groups while the magnitude of change was significantly higher in patients receiving shockwave therapy (Week 3: 0,660, 95%CI: -1,933-3,253; Week 15: 1,072, 95%CI: -2,110-4,254). Quality of life increased significantly in both groups, at each visit measures of patients in the shockwave group were significantly better than those in the laser group.

Conclusion. The results of our study point to a conclusion that both laser and shockwave therapy are effective in myofascial pain syndrome, though we found shockwave therapy to be more beneficial clinically.