

Abstract

This bachelor thesis deals with the effect of combination therapy (simultaneous application of electrotherapy and therapeutic ultrasound) in the treatment of vertebral algic syndrome in the cervical spine and lower back with a significant functional component (trigger points) without radicular symptoms. Furthermore, the effect of the treatment is compared with the effectiveness of transcutaneous electroneurostimulation. The theoretical part of this bachelor thesis is devoted to the description of the vertebral algic syndrome and the used treatment methods. The research part is focused on verifying the effects of combination therapy and transcutaneous electroneurostimulation, using each method in combination with individual therapeutic exercise. A total of twenty adult participants were included in the study, ten of whom were treated with combination therapy and ten were treated with transcutaneous electroneurostimulation. The effects of the therapies have been evaluated using selected pain questionnaire methods (visual analog scale, short form of the McGill Pain Questionnaire, Neck Disability Index, Oswestry Disability Index) and combination therapy intended for diagnostic purposes. The results of these measurements showed that the use of combined therapy and TENS reduces the intensity of pain, disability and irritability of treated TrPs. When comparing the effectiveness of both methods against each other, it turns out that treatment with combined therapy is as effective (according to NDI) or more effective (according to other questionnaire methods and diagnostic combined therapy) than with TENS. These results reached statistical significance ($p < 0.05$) except for the PRI – A parameter (part of SF – MPQ) for both methods and the NDI questionnaire for the TENS method.