

EFFICIENCY OF THE SHOCKWAVE THERAPY IN REDUCING PAIN OF CERVICALGIA

Ochiană Nicolae - University "Vasile Alecsandri" of Bacau-Romania

Ochiană Gabriela - University "Vasile Alecsandri" of Bacau-Romania

Ochiana Mircea Alex - Kinego-professional healthcare unit, Bacau, Romania

Summary:

The increasing frequency of people with cervical pain, irradiation at the level of the neck, upper limb, shoulder blade and often accompanied by paresthesia in the arm, forearm, hand and even motor deficit, determine us to use the most efficient techniques, methods and therapeutic means for relaxing the contracted muscle groups, restoring cervical lordosis restoring the muscular balance and implicitly for reducing the pain. Table tennis players by their specific position, by their displacements and the high number of executions in the time frame spent at the playing table, are predisposed to early appearance or after they finish their performance activity, to cervical pain. The hypothesis from which we left was to investigate to what extent shockwave therapy applied to the contracted muscles of the neck can contribute to the reduction and disappearance of cervical pain. Shockwave is a new technology that uses shock waves for the treatment of chronic pain in the musculoskeletal system. Shockwave is based on generating very intense energy in a very short time (10 milliseconds), the shock wave streaming the tissues at a speed higher than the speed of sound. The study was conducted on 18 subjects, former table tennis players aged 35-60 years, diagnosed with cervicalgia of various causes: rectitude, cervical spine, cervical arthritis, etc. Subjects were divided into 2 groups; an experimental group of 9 patients using shockwave therapy to relaxing tense and painful muscles from the scruff (upper trapezium, middle trapezium, rhomboid, paravertebral) and a control group to which classical therapy was applied using the TENS current and ultrasound. The study was conducted over a period of 4 months at a private physiotherapy clinic and each patient received 10 therapy sessions. For evaluation we use, the visual assessment of the spine (frontal and sagittal), VAS scale for measuring pain intensity (values 0-10, where 0 = absence of pain and 10 = maximum pain) palpation for detection of muscle contractions and pain irradiation, presence of paresthesias, cervical spine radiograph (sagittal and front open mouth) as well as scanning the cervical area using the hand-scanner. The results show a pain decrease on the the subjects who used shockwave therapy at values of 2 and 3, which is a reduction of pain until mild discomfort, while in the control group where the TENS current and ultrasound were applied, pain stagnated at values of 4 and 5. That represents a decrease of pain intensity by 20% higher in the experimental group compared to the control group. In conclusion, shockwave therapy has a high efficiency in reducing muscle contractions, restoring agonist/antagonist muscular balance, significant pain relief as well as cervical lordosis recovery. By reducing muscle contractions, cervical rectal correction is improved, posture improves and irreducible hernias are prevented.

Keywords: recovery, cervical spine, muscle contraction, mobility, muscle balance