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Evaluation of transcutaneous electrical nerve stimulation as a treatment of neck pain due to musculoskeletal disorders

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Abstract: BACKGROUND: This study was designed to evaluate transcutaneous electrical nerve stimulation (TENS) as a treatment for neck pain due to musculoskeletal disorders within the context of a physiotherapy treatment. METHODS: Thirty subjects with neck pain were randomly allocated to two groups, treated with either TENS (n = 15) or placebo (n = 15). Each subject received one session for one hour. All subjects were evaluated before, during treatment, after switch off and again a week after by using Myometer machine. All subjects completed the follow-up assessment. Subjects referred for out-subjects' physiotherapy department, fulfilling the inclusion and exclusion criteria, took part in the study. RESULTS: The assessments were compared and used to measure outcome treatment. Improvement in their condition was measured in terms of a reduction in the individual's level of pain during the week after the end of the first session. At the end of the first session, the study showed that 11 subjects (73%) in the treatment and 7 subjects (43%) in the control groups had gained marked improvement. These results are statistically highly significant, ($P = 0.01$) at the end of the follow-up assessment. CONCLUSIONS: A conclusion could be drawn that a single intense TENS treatment is an effective treatment for neck pain due to musculoskeletal disorders. On the other hand, TENS showed an effective pain relief with subjects who have a mild neck pain rather than those with severe symptoms.