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(comunicación oral).

**RADIAL SHOCK WAVE THERAPY FOR THE TREATMENT OF
PLANTAR HEEL PAIN, TENNIS ELBOW AND CHRONIC
TENDINITIS OF THE SUPRASPINATUS.**

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PURPOSE:

Chronic disorders of the locomotor system have been benefitted on the last years of a new treatment: extracorporeal shock wave therapy. A shock wave is an acoustic pulse, with a high peak pressure and a short life cycle. There are some different techniques through which shock waves may be generated. The radial shock waves are pneumatically generated. The aim of this study was to evaluate the effect of radial shock wave therapy (RSWT) in plantar heel pain (PHP), tennis elbow (TE) and chronic tendinitis of the supraspinatus (CTS).

RELEVANCE:

Insertional tendopathies (enthesiopathies) are a common clinical problem. The best method of treatment has not been established.

SUBJECTS:

280 patients (159 men and 121 women) aged 19-73 years (mean 46), with chronic symptoms (history of at least 6 months) and failure of conventional treatment. Distribution: 85 PHP (65 with a plantar heel spur), 80 TE and 115 CTS (52 with calcification).

METHODS:

In this prospective study the patients were treated in 3 sessions (at intervals of one week) with 2000 impulses per session. Device used: Swiss Dolor Clast (EMS-Switzerland). Energy flux density: 0,08-0,13 mJ/mm². The pain center was localized by biofeedback. The intensity of pain was evaluated by a Visual Analogue Scale (VAS). The pain at rest and during activity were evaluated in each examination. In the CTS group, the shoulder function was evaluated according to the Constant score. Evaluation was performed

immediately before treatment, 1, 4, 26 and 52 weeks after treatment.

ANALYSES:

The non-parametric Wilcoxon test for dependent samples to compare means of VAS and Constant score. At the end of follow-up the patients were asked to assess their level of residual pain compared with before treatment according to the Roles and Maudsley scale (RM scale). RESULTS: Patients of the three groups showed a considerable pain level decrease four weeks after the treatment (at rest $p < 0,01$ and during activity $p < 0,01$), the pain levels decreased further in the following examinations (at rest $p < 0,001$ and during activity $p < 0,001$). Patients of the CTS group showed a considerable Constant score increase four weeks after the treatment ($p < 0,01$), the Constant score increased further in the following examinations ($p < 0,001$). Good and excellent results (grades 1 and 2 by RM scale) have been obtained in 188 patients (67%). The following side effects were observed: irritations, small superficial hematomas, swelling and pain. All side effects were tolerated by the patients and disappeared after 2-8 days.

CONCLUSION:

RSWT is an effective treatment method for heel pain, tennis elbow and chronic tendinitis of the supraspinatus. Further randomized and controlled studies are necessary to underline the results of this investigation.