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Title	<b>SUCCESSFUL THERAPY OF TENNIS ELBOW AND CALCANEAL SPUR BY BALLISTIC SHOCK WAVES – A PROSPECTIVE, RANDOMIZED, PLACEBO-CONTROLLED MULTICENTER-STUDY</b>		
<b>Abstract</b>			
<b>Purpose of the study</b>			
The aim of this study was to evaluate the efficiency of ballistic, unfocussed extracorporeal shock wave therapy (ESWT) of tennis elbow and calcaneal spur.			
<b>Material and methods</b>			
Approved by the Ethics committee of the Ruhr-Universität Bochum, this prospective, randomized Multicenter-Study included 200 patients with epicondylitis radialis and with fasciitis plantaris. For both diagnosis 100 patients were randomized to either verum or placebo treatment. Only patients with an unsuccessful, conservative therapy during 6 months prior to ESWT, with at least 2 different treatment approaches, and a definite indication for open surgery were included. Up to 3 treatments with 2.000 impulses each were performed without or local anaesthesia using the Swiss DolorClast (EMS). The pain centre was localised through bio-feedback; no ultrasound or x-ray localisation was necessary. Patients were examined before and 1, 4, 12 weeks after ESWT. The pain level was evaluated with a Visual Analogue Scale in each examination.			
<b>Results</b>			
Entry parameters of both groups were very homogeneous. Temporary bleedings and swellings were found directly after the treatment; these side effects disappeared completely within one week after the treatment. For both indications the verum group showed significantly better results than the placebo group: 70% of the verum patients with calcaneal spur and 71% of verum patients with tennis elbow were classified painfree or had significantly reduced pains 1 week after the treatment by unfocussed, ballistic shock waves. At 12 weeks, very good and good treatment results in the verum group were seen in 90% of patients with calcaneal spur and in 95% of patients with tennis elbow. Only every fourth patient of both placebo groups showed pain improvement.			
<b>Conclusions</b>			
The application of ballistic shock waves is an effective, non-invasive and economically very competitive treatment method for insertion tendopathies such as tennis elbow and calcaneal spur. It is a successful alternative to open surgery as well as conventional extracorporeal shock wave therapy. Further studies should be done to verify the effectiveness of ballistic, unfocussed shock waves for the treatment of other sports medicine relevant tendopathies.			

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