

Recommendation for the Treatment of Tennis Elbow with ESWT

Author:

D. Steeger von Keitz, F. von Keitz and A. Löwe

Institution:

Orthopaedic Group Rüsselsheim, Burggrafenlacherweg 20
65428 Rüsselsheim, Germany

Over the past decade in Germany extracorporeal shock wave therapy (ESWT) has become a serious alternative in the treatment of the tennis elbow.

In the last 10 years, we have observed the results of ESWT in 272 athletes who have had Epicondylitis Humeri Radialis (EHR). We applied 1,500 impulses with an energy of 0.08mJ/mm² on different areas of the lateral epicondyle in relation to the individual pain sensation of the patient. The treatment was done at weekly intervals.

The evaluation of the results with various times of observation showed that directly after ESWT 171 athletes (approx. 63%) reported good to very good results. A slight improvement was reported in 27.2% (74).

Nearly 10% (27) of the athletes showed no improvement. During the first evaluation 6 weeks post-treatment, the good and excellent results increased from 63% to 72.1%. After 6 months the increase of good to excellent results reached 76.1% (207 PB). After more than 3 years, 72% (195 PB) of the athletes showed a good to excellent result. Only 12 of the athletes had a recurrence. After more than 10 years we were able to reach nearly 80% (151 PB) of the athletes who showed good to excellent results in the 3 year follow up. Only 9 (6%) had a recurrence.

Due to our 13 years experience we recommend that ESWT should be done without local anaesthesia because in such cases the patient is not able to give exact feedback regarding his individual pain areas. The shockwaves should be applied on different areas of the lateral epicondyle in relation to the individual pain sensation of the patient (Dynamical Treatment). The final results should be evaluated after a time period of more than 3 months, because of the long term effect of ESWT.