

## Low Energy Radial Extracorporeal Shock Wave Therapy as a Treatment for Chronic Patella Tendinopathy

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### Summary:

A single application of radial SWT is a safe and effective treatment for chronic patellar tendinopathy

### Abstract:

**Purpose:**

Extracorporeal shock wave therapy (SWT) is effective for the management of chronic recalcitrant tendinopathy. The objective of the current study was to assess if SWT is effective for treatment of chronic patellar tendinopathy.

**Methods:**

Thirty-three patients with chronic patellar tendinopathy received low-energy SWT. Thirty-three patients with chronic patellar tendinopathy received additional forms of non-operative therapy (control group). Evaluation was by change in visual analog score (VAS), Victoria Institute of Sport Assessment Score for patellar tendinopathy (VISA - P) score and by Roles and Maudsley score.

**Results:**

Mean pre-treatment VAS scores for the control and SWT groups were 7.5 and 7.8 respectively. One month, 3 months, and 12 months after treatment, the mean VAS for the control and SWT groups were 6.7 and 4.3 ( $p<0.001$ ), 5.9 and 3.5 ( $p<0.001$ ), and 5.1 and 2.7 ( $p<0.001$ ) respectively. One month, 3 months, and 12 months after treatment, the mean VISA for the control and SWT groups were 50.7 and 65.5 ( $p<0.001$ ), 52.1 and 71 ( $p<0.001$ ), and 54.9 and 74.5 ( $p<0.001$ ) respectively. At final follow-up, the number of excellent, good, fair, and poor results for the SWT and control groups were 8 and 3 ( $p<0.001$ ), 17 and 10 ( $p<0.001$ ), 5 and 16 ( $p<0.001$ ), and 3 and 4 ( $p<0.001$ ) respectively. The percentage of patients with excellent ("1") or good ("2") Roles and Maudsley scores (i.e. successful results) 12 months after treatment was statistically greater in the SWT group compared to the control group ( $p<0.001$ ).

**Conclusion:**

A single application of radial SWT is an effective treatment for chronic patellar tendinopathy.  
Level of evidence III.

**Keywords:**

ESWT, patellar tendon, tendinopathy, Jumper's knee