

# Extracorporeal shockwave for chronic patellar tendinopathy

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## Device and producing company:

OssaTron orthotripter from HMT (Kreuzlingen, Switzerland)

## Introduction:

The effect of shockwaves (ESWT) on chronic patellar tendinopathy is not well documented. This prospective clinical study evaluated the efficacy and safety of ESWT for chronic patellar tendinopathy.

## Methods:

This study consisted of 27 patients (30 knees) in the study group and 23 patients (24 knees) in the control group. Both groups showed similar demographic characteristics. In the study group, patients were treated with 1500 impulses of ESWT at 14 KV (= 0.18 mJ/mm<sup>2</sup> energy flux density) to the affected knee in a single session. Patients in the control group were treated with conservative treatments including NSAIDs, physiotherapy, exercise program and a knee strap. The evaluations included pain score, Victorian Institute of Sports Assessment (VISA) score and ultrasonographic examination.

## Results:

At 2- to 3-year follow-up, the overall results were 43% excellent, 47% good, 10% fair and 0% poor for the study group; and 0% excellent, 50% good, 25% fair and 25% poor for the control group ( $P < 0.001$ ). Recurrence was 13% for study group versus 55% for control group ( $P = 0.014$ ). Ultrasonographic examination showed a significant increase in the vascularity of the patellar tendon and a trend of reduction in the patellar tendon thickness after shockwave treatment as compared with conservative treatments. The complications are negligible.

## Discussion:

The results of conservative treatment are inconsistent and pain frequently recurs. This study showed that shockwave treatment produced superior results than conservative treatments for chronic patellar tendinopathy.

## Conclusion:

Extracorporeal shockwaves appear to be more effective than conservative treatment in chronic patellar tendinopathy.