

Low Energy Extracorporeal Shock for Chronic Greater Trochanteric Pain Syndrome (GTPS)

Author:

John P. Furia (1), J.-D. Rompe (2), N. Maffulli (3)

Institutions:

- 1) SUN Orthopedics and Sports Med., 900 Buffalo Road Lewisburg, PA 17837 USA
- 2) OrthoTrauma Evaluations Centrum Oppenheimer Str.70, 55130 Mainz, Germany
- 3) Barts and The London School of Medicine and Dentistry, Mile End Hospital, 275 Bancroft Road, London E1 4DG, Great Britain

Device and producing company:

EMS DolorClast

Introduction:

Lateral hip pain is a frustrating condition encountered regularly by primary care physicians and orthopedists. The aim of this study was to determine whether low-energy SWT is a safe and effective management modality for chronic GTPS.

Methods:

Thirty-three patients with chronic GTPS received low-energy SWT (SWT Group; 2000 shocks; 4 bars of pressure which is equal to 0.18 mJ/mm², total energy - 360 mJ/mm²). Thirty-three patients with chronic GTPS were not treated with SWT, but received additional forms of non-operative therapy (control group). All SWT procedures were performed without anesthesia. Evaluation was by change in visual analog score (VAS), Harris Hip Score (HHS) and by Roles and Maudsley score.

Results:

Mean pre-treatment VAS scores for the control and SWT groups were 8.5 and 8.5, respectively. One month, 3 months, and 12 months after treatment, the mean VAS for the control and SWT groups were 7.6 and 5.1 (p₁ and 57.6 and 79.9 (p_{final} follow-up, the number of excellent, good, fair, and poor results for the SWT and control groups were 10 and 0 (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.

Discussion:

The present study evaluated the effects of SWT on a consecutive series of patients with GTPS who had not responded to nonoperative management. The outcome for the entire population was evaluated and compared to a well matched control group. The mean VAS and HHS for the SWT group were statistically improved at 1, 3, and 12 months after treatment compared with the control group. The percentages of excellent or good results 12 months post-treatment for the SWT and control groups were 79% and 36%, respectively.

There were no significant complications, and no patient required additional shock wave therapy. The results from this study add to the growing number of favourable reports that substantiate the efficacy of SWT as an effective treatment for chronic tendinopathies.

Conclusion:

SWT is an effective treatment for GTPS.