

Extracorporeal shockwave therapy for chronic skin lesions

Author:

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Device and producing company:

DermaGold® , MTS, Konstanz, Germany

Introduction:

In treating infected non-unions connected with chronic skin lesions with ESWT, we observed a significant impact on wound healing. In most of the patients, extremely rapid healing of the wounds was observed. After successful animal trials, performed at the Department of Plastic and Reconstructive Surgery of the University of Innsbruck and the University of Kentucky, we continued our feasibility trial. We used the new parabolic therapy head which delivers almost flat shockwaves.

Methods:

Since late 2004 we have treated 261 patients with chronic skin lesions by means of ESWT with the DermaGold® / MTS, Konstanz, Germany. All therapies were performed without any kind of anesthesia as an outpatient treatment. Depending on the surface of the defect, different numbers of pulses were applied. The patients were treated in an average of 3 sessions (1-10) depending to their tendency for regeneration and epithelialization.

Results:

Of the 261 patients with skin lesions, 190 (72.8%) showed complete healing; 7 (2.7%) had more than 50% epithelialization; 16 (6.1%) had less than 50% epithelialization; 7 (2.7%) showed no improvement of the lesion; and 41 (15.7%) were lost to follow up. The treatment was tolerated by all patients without any kind of anesthesia. No adverse effects have been observed. In none of the cases was an increase of symptoms reported.

Discussion:

After this successful pilot study evaluating the most efficient treatment parameters was completed, a prospective randomized trial to confirm our results commenced in April at Walter Reed Army Medical Center (WRAMC) in Washington, DC.