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Evaluation of the effectiveness of vibroacoustic therapy treatment of patients with so-called "heel spur". A preliminary report.

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## Background:

The so-called "heel spur" is a radiological term referring to adaptive bone growth as a result of chronic overload enthesopathy of the proximal attachment of the plantar fascia. The main cause of the pain is continued localised pressure on the surrounding soft tissues. Vibroacoustic wave therapy is a relatively new method gaining popularity among doctors, physiotherapists and patients. The aim of this study was to confirm the clinical efficacy of vibroacoustic therapy compared to laser and ultrasound therapy.

## Material and Methods:

The study enrolled 60 patients treated for plantar heel spurs who were divided into a study group of 40 patients who underwent vibroacoustic therapy and a control group of 20 patients treated with ultrasound and laser therapy. The outcome measure for evaluating the effectiveness of physiotherapy was a subjective assessment of pain intensity by VAS and the modified short-form McGill Pain Questionnaire.

## **Results:**

The mean pain intensity score in patients undergoing vibroacoustic therapy decreased by about 2.6 points according to the VAS scale and 17 points according to the McGill questionnaire, compared to reductions of 0.6 and 6 points, respectively, in the ultrasound and laser therapy group. The correlation between subjective assessment of pain according to the VAS scale and palpation-based assessment of pain was significantly positive between the two groups, demonstrating similarity of the two scales, with a slight dominance of the group undergoing laser and ultrasound therapy.

## Conclusions:

These results represent a tentative confirmation of analgesic effectiveness of the vibro-acoustic method in musculoskeletal overload conditions. 2. In order to confirm its effectiveness, it is necessary to conduct further prospective randomized studies with blinding and evaluate the long-term results.