Extracorporeal Shock Wave Therapy for the Treatment of Chronic Pelvic Pain Syndrome in Males: A Randomised, Double-Blind, Placebo-Controlled Study

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Abstract

**Background:** There is no sufficiently validated therapy for chronic pelvic pain syndrome (CPPS).

**Objective:** To investigate the effects of extracorporeal shock wave therapy (ESWT) in 60 patients suffering from CPPS.

**Design, setting, and participants:** Sixty patients suffering from CPPS for at least 3 mo were investigated in two groups. Both groups were treated four times (once per week), each by 3000 impulses; group 2 was performed as a sham procedure. The investigation was designed as a placebo-controlled, prospectively randomised, double-blind phase 2 study. Standardised follow-up was performed 1, 4, and 12 wk after ESWT.

**Interventions:** Low-energy–density ESWT was performed using a perineal approach without anaesthesia. In the placebo group, the same setting was used without shock wave energy transmission.

**Measurements:** ESWT effects on pain, quality of life (QoL), erectile function (EF), and micturition were evaluated. The parameters were investigated using validated questionnaires (National Institutes of Health Chronic Prostatitis Symptom Index [NIH-CPSI], International Prostate Symptom Score [IPSS], International Index of Erectile Function [IIEF]) and the Visual Analog Scale (VAS) for pain evaluation.

**Results and limitations:** All patients completed outpatient treatments and follow-ups without any problems. All 30 patients in the verum group showed statistically (highly) significant improvement of pain, QoL, and voiding conditions following ESWT in comparison to the placebo group, which experienced a continuous deterioration of the same parameters during the follow-up period. Perineal ESWT was easy and safe to perform without anaesthesia or any side-effects.

**Conclusions:** This is the first prospectively randomised, double-blind study to reveal perineal ESWT as a therapy option for CPPS with statistically significant effects in comparison to placebo. ESWT may in particular be interesting because of its easy and inexpensive application, the lack of any side-effects, and the potential for repetition of the treatment at any time.

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