## Extracorporeal Shockwave Therapy Combined with Drug Therapy in Chronic Pelvic Pain Syndrome : A Randomized Clinical Trial

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## Abstract

**Purpose:** Chronic prostatitis/ chronic pelvic pain syndrome (CP/CPPS) is a nonspecific pelvic pain in the absence of signs of infection or other obvious local pathology for at least three of the last 6 months. Evidence for treatment approach is limited. So the aim of this study is to investigate the effect of extracorporeal shock wave therapy (ESWT) combined with pharmacotherapy in the treatment of CP/CPPS.

**Materials and methods:** In this randomized clinical trial, 31 patients with CP/CPPS were investigated in two groups: the intervention group (n=16) was treated with a combination of an alpha-blocker, an anti-inflammatory agent, a muscle relaxant and a short course of antibiotic in combination with 4 sessions of focused ESWT (a protocol of 3000 impulses, 0.25 mJ/mm2 and 3 Hz of frequency). The control group (n=15) received the aforementioned pharmacotherapy with 4 sessions of sham-ESWT . Follow-up was performed 4 and 12 weeks following ESWT by using the Visual Analogue Scale (VAS), International index of Erectile function (IIEF) 5, National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI) and International Prostate Symptom Score (IPSS) questionnaires. Post void residual (PVR) urine and maximum flow rate (Qmax) were also assessed in both groups.

**Results:** The patients mean age was 43.7  $\pm$ 12.6 years. In both groups, the mean scores of NIH-CPSI (total and sub-domains) and VAS showed statistically significant improvements after 4 and 12 weeks compared to the baseline (P < .001). In the intervention group, IPSS (mean difference: 4.25) and Qmax (mean difference: 2.22) were also significantly improved (P < .001). There was a significant improvement in NIH-CPSI (mean difference: 1.1) and VAS scores (mean difference: 1.1) in the intervention group as compared to

the control group (P < .01). Qmax, PVR and IIEF score were not statistically different in the two groups.

**Conclusion:** ESWT in combination with pharmacotherapy could improve the treatment outcome in patients with CP/CPPS.

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