

Evaluation of a low-intensity shockwave therapy for chronic prostatitis type IIIb/chronic pelvic pain syndrome: a double-blind randomized sham-controlled clinical trial

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Abstract

Background

Currently, there is no efficacious treatment method for chronic prostatitis type IIIb/chronic pelvic pain syndrome (CP/CPPS). Aim of the study was to investigate and compare the efficacy and safety of low-intensity shockwave therapy (LiST) vs. sham treatment in CP/CPPS patients.

Methods

Patients with CP/CPPS diagnosis were randomized in this prospective, sham-controlled, double-blind study either to the active groups (Group B, C) who received 5000 shockwaves per session with energy flux density 0.1 mJ/mm^2 or to the sham group (Group A) who received 5000 shockwaves from a visually identical sham probe. All groups underwent six sessions (once/week). LiST effects on pain, micturition, quality of life (QoL), and erectile function were evaluated at 4, 12, and 24 weeks after treatment. The parameters were investigated using validated questionnaires. Uroflowmetry and post void residual calculation were performed at baseline and at 4- and 12-week FU visit. Prostate mpMRI and PSA measurement were performed at baseline and 12-week FU visit.

Results

Overall, 45 men were randomized to the active ($n = 30$) and sham groups ($n = 15$). Regarding impact of LiST in National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI) total, pain, and QoL subdomains scores a clear and persistent in all FU timepoints

improvement was found compared to sham treatment. NIH-CPSI urinary subdomain, International Prostate Symptom Score [IPSS], PSA, and mpMRI-PIRADS scores did not differ between the two groups. The mean difference between the LiST and sham group in the change of the NIH-CPSI pain-domain score (Q1–4) from baseline to 12 weeks after final treatment which was 3.3 (95% CI, 1.8, 4.7). Perineal LiST was easy and safe to perform without anesthesia or any side-effects.

Conclusions

LiST seems to be a safe and effective treatment option for CP/CPPS, considerably improving pain and quality of life. Lack of any side-effects, and the potential for repetition make LiST a promising treatment choice for CP/CPPS patients.