

Abstract

Introduction

Extracorporeal shock wave therapy (ESWT) for treatment of Peyronie's disease (PD) is controversial [J Sex Med. 2013 Jul](#)

Aim

To study the efficacy of ESWT by a placebo-controlled, randomized trial.

Methods

Patients with PD (n = 102) were randomly assigned (n = 51) to each group (ESWT or placebo). All patients were given 6 weekly treatments. Patients in the ESWT-group received 2,000 shock waves per session, using the Piezoson 100 lithotripter (Richard Wolf, Knittlingen, Germany). Patients in the placebo-group were treated with interposition of a plastic membrane, which prevented any transmission of shock waves.

Main Outcome Measures

Primary end point was decrease of pain between baseline and after 4 weeks follow-up. Secondary end points were changes in deviation, plaque size, and sexual function. Pain was assessed by a visual analog scale. Deviation was measured by a goniometer after artificial erection using Alprostadil (Viridal®, Schwarz Pharma, Monheim, Germany). Plaque size was measured with a ruler and sexual function assessed by a scale regarding the ability to perform sexual intercourse.

Results

Overall, only 45 patients experienced pain at baseline. In the subgroup analysis of these patients, pain decreased in 17/20 (85.0%) patients in the ESWT group and 12/25 (48.0%) patients in the placebo group ($P = 0.013$, relative risk [RR] = 0.29, 95% confidence interval: 0.09–0.87). Penile deviation was not reduced by ESWT ($P = 0.66$) but worsened in 20/50 (40%) and 12/49 (24.5%) patients of the ESWT and placebo-group, respectively ($P = 0.133$). Plaque size reduction was not different between the two groups ($P = 0.33$). Additionally, plaque size increased in five patients (10.9%) of the ESWT group only. An improvement in sexual function could not be verified ($P = 0.126$, RR = 0.46).

Conclusions

Despite some potential benefit of ESWT in regard to pain reduction, it should be emphasized that pain usually resolves spontaneously with time. Given this and the fact that deviation may worsen with ESWT, this treatment cannot be recommended. **Hatzichristodoulou G, Meisner C, Gschwend JE, Stenzl A, and Lahme S. Extracorporeal shock wave therapy in Peyronie's disease: Results of a placebo-controlled, prospective, randomized, single-blind study. J Sex Med **;**:**_**.**