

PubMed

## Abstract

Full text links



J Urol. 2012 May;187(5):1769-75. doi: 10.1016/j.juro.2011.12.117. Epub 2012 Mar 15.

# Does low intensity extracorporeal shock wave therapy have a physiological effect on erectile function? Short-term results of a randomized, double-blind, sham controlled study.

Vardi Y<sup>1</sup>, Appel B, Kilchevsky A, Gruenwald I.

## Author information

### Abstract

**PURPOSE:** We investigated the clinical and physiological effect of low intensity extracorporeal shock wave therapy on men with organic erectile dysfunction who are phosphodiesterase type 5 inhibitor responders.

**MATERIALS AND METHODS:** After a 1-month phosphodiesterase type 5 inhibitor washout period, 67 men were randomized in a 2:1 ratio to receive 12 sessions of low intensity extracorporeal shock wave therapy or sham therapy. Erectile function and penile hemodynamics were assessed before the first treatment (visit 1) and 1 month after the final treatment (followup 1) using validated sexual function questionnaires and venoocclusive strain gauge plethysmography.

**RESULTS:** Clinically we found a significantly greater increase in the International Index of Erectile Function-Erectile Function domain score from visit 1 to followup 1 in the treated group than in the sham treated group (mean  $\pm$  SEM  $6.7 \pm 0.9$  vs  $3.0 \pm 1.4$ ,  $p = 0.0322$ ). There were 19 men in the treated group who were initially unable to achieve erections hard enough for penetration (Erection Hardness Score 2 or less) who were able to achieve erections sufficiently firm for penetration (Erection Hardness Score 3 or greater) after low intensity extracorporeal shock wave therapy, compared to none in the sham group. Physiologically penile hemodynamics significantly improved in the treated group but not in the sham group (maximal post-ischemic penile blood flow 8.2 vs 0.1 ml per minute per dl,  $p < 0.0001$ ). None of the men experienced discomfort or reported any adverse effects from the treatment.

**CONCLUSIONS:** This is the first randomized, double-blind, sham controlled study to our knowledge that shows that low intensity extracorporeal shock wave therapy has a positive short-term clinical and physiological effect on the erectile function of men who respond to oral phosphodiesterase type 5 inhibitor therapy. The feasibility and tolerability of this treatment, coupled with its potential rehabilitative characteristics, make it an attractive new therapeutic option for men with erectile dysfunction.

Copyright © 2012 American Urological Association Education and Research, Inc. Published by Elsevier Inc. All rights reserved.

## Comment in

Re: Does low intensity extracorporeal shock wave therapy have a physiological effect on erectile function? Short-term results of a randomized, double-blind, sham controlled study: Y. Vardi, B. Appel, A. Kilchevsky and I. Gruenwald. J Urol 2012; 187: 1769-1775. [J Urol. 2012]

PMID: 22425129 [PubMed - indexed for MEDLINE]

---

**Publication Types, MeSH Terms, Substances**

---

**LinkOut - more resources**

---

**PubMed Commons**

[PubMed Commons home](#)

0 comments

[How to join PubMed Commons](#)