

Efficacy of low-intensity shock wave therapy for erectile dysfunction: A systematic review and meta-analysis.

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Abstract

CONTEXT: The low-intensity shockwave (LISW) therapy is a recently developed modality for treating erectile dysfunction.

OBJECTIVE: To assess the efficacy of LISW therapy for treating erectile dysfunction as described in the literature.

ACQUISITION OF EVIDENCE: Two independent reviewers identified studies eligible for a systematic review and meta-analysis of various sources written in English and Spanish, using the databases of PubMed, EMBASE and Web of Science. We excluded studies on Peyronie's disease. We employed the DerSimonian-Laird method for defining heterogeneity, calculating the grouped standard deviation of the mean (SDM). The primary objective of this review is to assess efficacy based on the change in the International Index of Erectile Function (IIEF-EF) over baseline at 1 month from the start of treatment, both for the treatment arm and the placebo arm. The secondary objective is focused on analysing IIEF-EF at 3-6 months from the start of the therapy.

SUMMARY OF THE EVIDENCE: The pooled data of 636 patients from 12 studies showed that treatment with LISW resulted in a significant increase in IIEF-EF at 1 month with respect to baseline (SDM, -2.92; P=.000), to a greater degree than placebo (SDM, -.99; P=.000). The IIEF-EF at 3-6 months for the treated patients was significantly greater than baseline (SDM, -2.78; P=.000). Only one study compared the efficacy of placebo at 3-6 months versus baseline (SDM, -9.14). The comparison between LISW and placebo favours active treatment (SDM, 2.53; P=.000) at 1 month. There are insufficient data in the literature to assess the response over placebo at 3-6 months.

CONCLUSIONS: According to the literature, treatment with LISW for erectile dysfunction is effective, both in the short and medium term. LISW has been described as more effective than placebo in the short term. The long-term efficacy data are insufficient. More studies are needed to explain the role of this therapy according to specific causes of erectile dysfunction.

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KEYWORDS: Cuestionario IIEF; Disfunción eréctil; Erectile dysfunction; Extracorporeal lithotripsy; IIEF questionnaire; Litotricia extracorpórea; Pene; Penis