

Study in the World Journal of Men's Health sees LiESWT for the treatment of ED as a good treatment option for ED

A research group from South Korea and the USA concludes, based on a review that shock wave treatment of vascular ED is a good and promising treatment option. As a stand-alone therapy but also in combination with other procedures.

Please find attached the digital PDF of the complete study.

Review Article

Male sexual health and dysfunction

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Novel Emerging Therapies for Erectile Dysfunction

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1) Low-intensity shock wave therapy

Extracorporeal low-intensity shock wave therapy (LI-SWT) is a potential treatment option for ED. The micro-trauma to cavernosal tissue induced by LI-SWT may stimulate neovascularization and upregulate some factors associated with tissue healing and remodeling [87]. A prospective randomized, sham-controlled study was conducted on 55 patients with vasculogenic ED [88]. The study reported that clinically meaningful improvement of erectile function (international index of erectile function-erectile function [IIEF-EF] and EHS) was shown in 40.5% of the treatment group according to the minimum clinically important differences (MCID) criteria. There were no adverse effects reported. Another randomized clinical trial was conducted to assess changes in penile hemodynamics and IIEF-EF score in patients with vasculogenic ED [89]. For the IIEF-EF score, the MCID criteria for the treatment group were met by 56.7% of the treatment group at one month and by 75% at 12 months. In a more recent randomized clinical trial evaluating the effect of LI-SWT on ED among kidney-transplanted patients, similar findings were reported [90]. Kitrey et al [91] evaluated the long-term efficacy of LI-SWT in 156 ED patients. Efficacy was assessed by IIEF-EF at 6, 12, 18, and 24 months in patients with a successful outcome of LI-SWT according to the MCID at one month. During the follow-up period, clinical beneficial effect decreased from 64% at 1 month to 34% at 2 years. The efficacy lasted longer in mild forms of ED without comorbidity, such as diabetes. Meta-analyses have suggested that LI-SWT

could significantly improve erectile function as evaluated by the IIEF and EHS [92,93]. Therapeutic efficacy could persist for about 3 months. Clinical outcomes were associated with number of shock waves, energy intensity, and duration of treatment [92]. Recent meta-analysis demonstrated that the mean difference of IIEF-EF score between the treatment and sham groups was 4.23 ($p=0.012$) at the 1-month follow-up. No significant adverse events were reported [94]. These studies suggest that LI-SWT appears to produce significant improvement of the IIEF and EHS and appears to be well-tolerated. However, setup of LI-SWT, treatment protocols, and follow-up durations were variable. There were 2 clinical trials that showed no difference between the LI-SWT group and control group [95,96]. Current evidence is promising, but still controversial. Robust evidence from additional randomized controlled trials with standardized protocols and longer-term follow-up procedures is needed. There are several ongoing randomized clinical trials that may help elucidate the role of LI-SWT in the treatment of ED along with producing a standardized treatment protocol [97]. Interestingly, a recent study suggested that the combination of SC therapy and LI-SWT may have synergistic effects in the promotion of angiogenesis and decrease in the destruction of cells [98]. More work needs to be done in this field to better understand the long-term efficacy and safety of this therapy, which still remains investigational at this time.