



Low intensity shock wave (LISW) treatment (Renova) to improve male sexual function: A preliminary data on 42 patients

Fabrizio Iacono, M.D., Ph.D., Antonio Ruffo, M.D., Domenico Prezioso, M.D., Ph.D., Giuseppe Romeo, M.D., Ester Illiano, M.D., Leo Romis, M.D., Giovanni Di Lauro, M.D.

Centro Urolab, Napoli, Italy

Objective

The aim of our study is to investigate the safety and efficacy of Low intensity Extracorporeal shock wave therapy LI-ESWT (Renova) in the treatment of erectile dysfunction.

Methods

We enrolled 47 patients with erectile dysfunction (ED). They underwent four weekly sessions using a dedicated device (Renova) for the management of erectile dysfunction. The treatment included four weekly sessions. During each treatment session, LI-ESWT was applied at four different anatomical areas, right and left corpus cavernosum and right and left crus penis (900 shocks, 0.09 mJ/mm² intensity at 240 shocks/min at each site for a total of 3600 shocks). Patients were followed at one month after treatment. Two self-administered questionnaires: International Index of Erectile Function-Erectile Function (IIEF-ED), Sexual Encounter Profile (SEP- Questions 2 and 3) were given to patients to assess their sexual function pre and post treatment.

Results

Five patients dropt out of treatment, so fourty-two patients (mean age was 59.2 years) were evaluated. At one month follow-up, we noticed a statistically significant improvement in IIEF-ED domain scores in treated patients (from a mean of 12+/- 4.8 at baseline to 23.5+/- 5.3, p<0.05). SEP-Q2 and SEP-Q3 success rates improved from 57% to 84% and from 24% to 76% respectively. No side effects were reported.

Conclusions

(LI) ESWT improves male sexual function inducing neovascularization in the treated tissues by stimulating the expression of angiogenesis-related growth factors, such as endothelial nitric oxide synthase, vascular endothelial growth factor, and endothelial cell proliferation factors, such as proliferating cell nuclear antigen. This therapy shows a statistically significant clinical improvement of erectile function without any side effect or contraindication. In our opinion further studies are needed even to assess the possibility to repeat the treatment cyclically or in association with PDE5-i or with nutraceutical composite.