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The Effect of Low Intensity Shock Wave Therapy In Severe ED Patients Not Responding To Oral Medication.

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Objectives

Low Intensity Extracorporeal Shock Wave Therapy (LI-ESWT) was shown to have a beneficial effect on ED patients responding to PDE5i's. The aim of this study was to assess its effect on PDE5i's non-responders.

Design and Methods

We included severe ED patients that failed to respond to PDE5i therapy, who scored 0-2 on the rigidity scale (RS) during PDE5i therapy. Each subject underwent a full baseline assessment of erectile and sexual function (during PDE5i treatment) using validated questionnaires and objective penile endothelial function testing.

Treatment included 2 sessions/week for 3 weeks, repeated after a 3-week no-treatment interval. At each session LI-ESWT was applied on the penile shaft and crus for 3 minutes in 5 different penile anatomical sites (intensity of 0.09 mj/mm², 300 shocks/site). One-month after end of treatment the same baseline assessment was repeated. An active PDE5i medication regime was then provided and final erectile function was reassessed. Main endpoints for success were changes in RS and in IIEF-ED Domain score (EDDS).

Results

Twenty-four subjects age 41-78 (mean age 62.8) with an initial average EDDS of 8.8±0.99 (on PDE5i therapy) were analysed. All completed a full 12 week treatment course. After one month their EDDS significantly increased to an average of 13.6± 1.11 (without additional medication). At the end of the active PDE5i treatment the mean EDDS was 20.07±1.33 (an increase of 11.27 points, p< 0.001) and 80% of the patients had a RS of 3 and more (p<0.0001). Five of 15 subjects were normalized with use of PDE5i. All FMD parameters significantly increased and no adverse events were reported.

Conclusions

LI-ESWT is a new modality that can be used to effectively treat a sub group of severe ED patients who failed oral medication therapy. This study further emphasises the physiological effect that LI-ESWT can have on the erectile mechanism.