Low Intensity Shock Waves for Erectile Dysfunction- Should We Consider This a Therapeutic Option?

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Introduction

Erectile Dysfunction (ED) of any etiology is a highly prevalent medical problem, which has become a frequent topic in any medical consultation.

Therapeutic options for Erectile Dysfunction (ED) are not generally satisfying.

A non-surgical treatment that is applied once and dissociates with the sexual activity is a therapeutic option that is demandable by patients.

With the development of new alternative therapies, such as Low Intensity Shock Wave, we may be witnessing the development of a new therapeutic strategy, which does not only seek for a symptomatic treatment, but tries to restore the penile vasculature, a key element in the erection, and therefore results in improved erectile function.

Objective

To Assess the effectiveness and safety of Line Focused Shockwave Therapy (LFST) in clinical practice, as an alternative and/ or a complementary therapy in the short and medium term, in a population of patients suffering of erectile dysfunction.

Material and Methods

A prospective, open, non- sham controlled study was performed in 2 independent centers: Málaga, and Seville.

The study included patients above 18 years, with ED of at least 6 months duration, which gave their informed consent and received the clinical study treatment.

The treatment protocol in both centers consisted of 4 sessions, 1 per week, and included a total of 3600 shocks, divided and applied equally into 4 penile regions: right and left Crura, and right and left Corpus Cavernosum.

The sessions were conducted in an outpatient setting, without anesthesia/ analgesia, with a total duration of less than 30 minutes each.

Patients were evaluated at baseline, 1 month, and 3 months after completion of the treatment.

The erectile function domain score of the International Index of Erectile Function (IIEF-EF), PDE5-i consumption, and the percentage of positive response to questions 2 and 3 of the Sexual Encounter Profile (SEP 2 and SEP 3) were evaluated.

Results

81 men with a mean age of 56.81 years were evaluated, from which 69 men completed the treatment protocol.

The mean IIEF-EF score increased from 16.98 at baseline, to 21.64 after 1 month, and to 21.22 3 months post treatment completion.

The percentage of positive responses to SEP 2 changed from 66.18% at baseline, to 84.99% after 1 month, and to 83.33% after 3 months.

The percentage of positive responses to SEP 3 changed from 33.24% at baseline, to 65.31% after 1 month, and to 68.32% after 3 months.

PDE5-i consumption was 44.57% at 3 months post treatment, compared with 81.48% at baseline, and 40.74 after 1 month.

No patient had any adverse effect or complication during or after treatment.

Conclusions

The results show an overall and consistent improvement in IIEF-EF scores, and a high percentage of positive response to SEP 3, which is maintained 3 months post treatment, and is confirmed by the decrease in PDE5-i consumption.
The results of this study, using shock waves for the treatment of erectile dysfunction in daily clinical practice, allow us to be optimistic about their future, considering that the data of the two centers are consistent and in line with the data published for other devices.

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