

POMS-26. Clinical Study of New Treatment in Erectile Dysfunction. Preliminary Results

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Introduction: The shock waves of low intensity (Li-ESWT) have angiogenic properties that induce neovascularization of the affected tissue and improving blood circulation. The application of these results to the erectile dysfunction (ED) has given rise to the hypothesis that if shock waves are applied to the corpora cavernosa they could improve blood flow to the penis and the endothelial function leading to an improved erection.

Objectives: To investigate and document the vascular changes that occur in patients diagnosed with vascular ED after Li-ESWT treatments, the correlation with clinical changes determined by the IIEF / SHIM and subjective as the quality of penile rigidity and determine their permanence with time.

Materials and methods: Inclusion criteria: patients diagnosed with more than 6 months duration; older than 18 years; sexually active with regular partner; multiple cardiovascular risk factors; erectile function index <15 (IIEF / EF); at least 50% of unsuccessful attempts at intercourse; non-responders to IPDE-5. Exclusion criteria: neurological or psychogenic; spinal cord injury; pelvic surgery; unstable medical condition; morphological alterations of the penis (Peyronie and others); cardiovascular disease that prevents normal sexual activity. Protocol of the studio; 70 subjects with a mean age / range (53 / 40-66 years) were recruited; IIEF / EF 11±1; non-responders to PDE5 inhibitors. IIEF / EF questionnaires were collected at baseline and after 1 month. Hemodynamic penile vascular parameters were measured using 20 mcg of alprostadil at baseline and after 1 month. Li-ESWT procedure. A total of 5000 shock waves were applied. The Energy level 4 of the Dornier Aries with maximum frequency of 8 Hz was applied with the effective energy of ~ 3.4 mJ per pulse, for a total of 17.000mJ. The protocol consisted of a weekly session for 5 weeks, in five different areas; three along the penile shaft and two at the penile crura.

Results: One month after completion of treatments, 60 of 70 men (85.7%) improved to at least 7 points in the IIEF-Score with an average increase of 11 points; 23 (32.8%) had one measured Score higher > 25. From the 70 patients, 37 men (52.8%) were able to achieve vaginal penetration without PDE5 inhibitors.

Conclusions: Li-ESWT is effective and safe in treatment for erectile dysfunction for non-responders of PDE5i. ESWT is improving arterial vascularization act with no significant side effect on the venoocclusive mechanism. There is strong evidence and significant correlation between subjective results and the evaluation of blood flow in the penis. No patients report adverse events during or after treatment. These results are maintained after 1 year follow-up, although depending on the control of etiologic factors in different groups of ED patients.