



## Impact of low-intensity focal extracorporeal shock wave therapy in men with prostate disease and erectile dysfunction

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### Introduction

Focal extracorporeal shock wave therapy (Li-ESWT) is an evidence-based, adverse-effect-free treatment recommended by international guidelines for patients with vascular-origin ED. Evidence regarding its application in patients with prostate cancer or BPH remains limited and occasionally contradictory. These studies typically utilize only Li-ESWT, which is not the standard approach, as patients with ED are usually managed with comprehensive treatment protocols that include Li-ESWT as one component. The aim of this study is to describe and evaluate the clinical outcomes of men with erectile dysfunction (ED) and prostate cancer or benign prostatic hyperplasia (BPH) who received Li-ESWT as part of their treatment.

### Material & Methods

A review was conducted of the medical records of men with ED and a history of prostate cancer or BPH who received Li-ESWT between 2019 and 2024 across four countries in the Americas. Clinical data were extracted and categorized based on the specific prostate condition reported. The impact of treatment was assessed using the International Index of Erectile Function – Erectile Function domain (IIEF-15 EF) and the erectile hardness score (EHS), as measures of functional and penetration capacity, respectively.

### Results

Among 10,066 patients with ED treated with Li-ESWT during the study period, 94 (0.93%) had a history of prostate cancer, and 466 (4.6%) had BPH. The mean ages were similar in both groups ( $65 \pm 8.5$  years for cancer,  $64.9 \pm 9$  years for BPH). In the cancer group, 66% presented with severe ED, and 86.2% had an EHS  $\leq 2$ ; in the BPH group, 51.1% had moderate ED, and 65.6% could not penetrate. After completing a cycle of Li-ESWT (6 sessions), 70.4% of men with prostate cancer and 68.8% of those with BPH achieved sufficient erection for penetrative sex. The average IIEF-15 EF score improved by 9 points in the cancer group and 5.7 points in the BPH group ( $p < 0.001$ ). The magnitude of change was clinically significantly greater in men with prostate cancer (61.8%) compared to those with BPH (51%;  $p = 0.001$ ).

### Discussion

Although current sexual medicine guidelines recommend shock wave therapy for patients with mild ED and do not specifically address patients with BPH or prostate cancer, this large observational study suggests that Li-ESWT could serve as an adjunct to pharmacological treatment, showing significant improvements in penetration ability and IIEF-15 EF scores. Prospective, randomized studies in this specific patient population are necessary to generate more robust evidence supporting the integration of Li-ESWT into routine management.