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A curative therapy for ED edges forward

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The clinical practice of erectile dysfunction (ED) management has been advanced greatly in the past 2 decades, owing to major progress made in the scientific study of this condition that, in turn, led to new treatments. However, current treatments for ED remain less than ideal because they are effectively "on demand" and they uniformly do not provide a sustained erection recovery benefit.

The ongoing purpose of scientific research efforts in this discipline is to achieve pathophysiologically grounded and clinically restorative interventions —in essence, curative therapy. Much excitement has surrounded such ideas as gene therapy and stem cell therapy for this exact purpose, although neir promise is as yet unfulfilled.

The concept that low-intensity shock wave therapy may subserve curative therapy for ED has driven a great deal of excitement toward this particular reatment. A novelty when initially investigated 5 years ago, it has now been subjected to multiple randomized, placebo-controlled, and additional open-label studies in clinics worldwide, demonstrating impressive efficacy and safety

The attraction of this therapy is noted by being easily administered and noninvasive. Its role may be defined by treatment success in as much as 70% of phosphodiesterase type-5 (PDE-5) inhibitor non-responders or otherwise allowing many to recover PDE-5 inhibitor responsiveness after treatment. In this mode, shock wave therapy at least affords a reduced need for second-line, semi-invasive ED treatment options in process-of-care paradigms.

Amid this excitement, concerns regarding the application of this therapy persist. The mechanism of its effect remains elusive, although some scientific work has suggested it exerts angiogenesis and local neovascularization effects or stimulates stem cell recruitment with tissue repair. A patient acceptance barrier is also possible because the treatment does require extensive treatment sessions. Ongoing work will also be required to define an optimal treatment protocol and establish the preferred role of this treatment for target populations with ED.