## RESEARCH HIGHLIGHTS

## **THERAPY**

## Intralesional nicardipine: another calcium channel blocker shown to be effective in patients with Peyronie's disease

The search for an effective nonsurgical treatment for patients with Peyronie's disease (PD), a condition characterized by the development of fibromatosis in the tunica albuginea resulting in pain and abnormal penile curvature, has yet to yield an approach with satisfactory efficacy. Among the many treatments to be tested in these patients, such as shock wave therapy, radiation therapy, an array of oral agents, and intralesional injection of steroids or interferons—all of which have shown poor efficacy—intralesional administration of the non-dihydropyridine calcium channel blocker verapamil has had reasonably promising results.

Based on the relative success of this approach, Soh and colleagues conducted a randomized, placebo-controlled study of the efficacy of nicardipine—a dihydropyridine calcium channel blocker that might have superior efficacy in terms of reducing extracellular matrix synthesis compared to verapamil—for the treatment of patients with transitional PD (that is, between the acute and chronic phases of the disease).

The study included 74 men who were randomly assigned to receive biweekly intralesional injection of either nicardipine (10 mg in 10 ml distilled water) or 10 ml normal saline for 10 weeks (total of 6 doses). The clinical outcomes assessed were pain during erection, erectile function (according to the International Index of Erectile Function 5 [IIEF-5]), plaque size and extent of penile curvature.



Mean pain scores decreased throughout the study in both groups, but to a significantly greater extent in the nicardipine group (P = 0.019). At 48 weeks, significant improvements in mean IIEF-5 score and plaque size were noted in the nicardipine group only (P<0.01 and P = 0.0004, respectively). Penile curvature improved significantly and to a similar extent in both groups by the end of the trial, a finding consistent with previous studies of verapamil.

The authors conclude that nicardipine is another viable option for the treatment of patients with transitional phase PD. Nevertheless, it seems that the search for a nonsurgical cure for PD must continue.

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Original article Soh, J. et al. Nicardipine vs. saline injection as treatment for Peyronie's disease: a prospective, randomized, single-blind trial. J. Sex. Med. doi:10.1111/ j.1743-6109.2010.01924.x