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## EDITORIAL COMMENT

Collagenase clostridium histolyticum (CCH) is the first medical treatment approved by the Food and Drug Administration for intralesional management of Peyronie's disease (PD). Based on the product monograph developed from Phase I-III trials, CCH is not currently approved for use in complex, hourglass, or

ventral curvatures.<sup>1</sup> The incidence of these atypical deformities is significant and the use of CCH in these patients is an evolving area of therapeutics. With this series, the authors provide an important addition to the literature addressing the question of efficacy and safety of treating ventral curvatures.

This is the first published report that describes and analyzes the use of CCH in men with ventral PD. The authors use multiplanar rather than uniplanar measurements for penile curvature, which more accurately characterizes baseline deformity. Interestingly, the ventral PD men have significantly worse baseline curvature. Despite the larger degree in curvature only 20% of the ventral patients report interference with sexual function, which also questions the need for intervention in this population. Only 4 of the 7 ventral curvature patients that could not initially have penetrative intercourse were able to achieve this after CCH treatment. Given that most patients had a curve that did not interfere with sexual function, it is not surprising that after treatment men rarely needed additional therapy. An additional intriguing result is that over 30% of ventral curvature patients had improvement of >90%, which implies that a large proportion of study patients completed treatment with a negligible residual curve. The small number of ventral curvature patients (n = 16) and the large standard deviation in measurements make this result interpretation difficult. In addition, since there is a significantly larger curvature in the ventral patients, both the absolute and relative differences may appear larger, when ultimately the clinical outcomes are not impressive.

The claim that CCH is efficacious based on the limited sample size and short-term follow-up appears to be overreaching. We would agree that the most important finding discussed in this report is that CCH injections for ventral curvature appear safe, which is consistent with the literature of other intralesional injections.<sup>2</sup> The clinical concern that CCH use in ventral curvatures may result in urethral injury and hematoma was not observed in this limited series. Long-term outcomes are needed to confirm there is no delayed risk of urethral complications. This result is encouraging and may prompt other clinicians to consider utilizing this treatment for this patient population, the caveat being that this report has very limited numbers of men studied over a short period of time, as such caution is needed prior to widespread use and acceptance.

Further evaluation of CCH to treat complex PD curves is needed to advance the therapeutic field of PD. These authors have demonstrated clinical safety of CCH in ventral curves in a limited population which should act as a catalyst for larger randomized-controlled trials with longer follow-up and less confounding variables to truly evaluate treatment efficacy.

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