



Intralesional Injection of Collagenase *Clostridium histolyticum* for the Management of Peyronie's Disease with Indentation or Hourglass Deformity



Mohamad M. Osman BS, Maxwell Towe BS, Farouk M. El-Khatib MD, Linda M. Huynh MSc, Faysal A. Yafi MD

Introduction

- Intralesional injection (ILI) of collagenase *Clostridium histolyticum* (CCH) is the only Food and Drug Administration approved medical treatment for the management of stable phase Peyronie's disease (PD).
- To date, however, there are no published reports specifically examining outcomes of treatment in patients with PD and significant indentation or hourglass deformity.
- We sought to assess outcomes in patients receiving ILI CCH for these specific deformities.

Methods

- We conducted a retrospective chart review of 13 patients with PD and significant indentation or hourglass deformity who began ILI CCH between November 2016 and March 2019.
- A penile duplex Doppler ultrasound (PDDU) was performed prior to initiation of therapy in all patients.
- Degree of curvature was measured at the time of PDDU, after the second cycle, and 4-6 weeks after completion of the fourth cycle.
- Patients were called after completing treatment and asked whether or not they were satisfied with their injections and if they would pursue this treatment again.
- Patients answered the symptom bother domain of the Peyronie's Disease Questionnaire (PDQ) and were scored on a scale of 0-16 before, during and after treatment.

Results

- Mean age was 52.9 ± 12.6 years.
- Eight patients (61.5%) had significant indentation and five patients (38.5%) had an hourglass deformity.
- Overall, 7.7% completed 2 injections, 23.1% 6 injections, 38.5% 8 injections, and 30.8% more than 8 injections.

Figure 1. Indentation



Figure 2. Hourglass Deformity



Table 1. Objective Improvement Outcomes

	Indentation	Hourglass
Number patients treated	N= 8	N= 5
Mean number of injections given	8.3 ± 3.1	
Mean pre-treatment degree curvature	$48.1^\circ \pm 15.9^\circ$	
Mean change in degree (percent) curvature	$14.2^\circ \pm 10.6^\circ$ ($30.5\% \pm 21.4\%$)	
Mean change in degree (percent) curvature with 8 or more injections	$18.3^\circ \pm 9.4^\circ$ ($35.5\% \pm 17.1\%$)	
Percent patients with significant improvement in curvature	61.5%	
Percent patients with significant improvement in curvature with 8 or more injections	77.8%	
Complication rate	7.7%	

Table 2. Subjective Improvement Outcomes

	Indentation/Hourglass
Mean change in PDQ Bother Score	6.8 ± 2.9
Percent patients that reported resolution	65.3%
Percent responders satisfied with treatment	100%
Percent responders that would pursue treatment again	80%

Conclusion

- Patients with PD and significant indentation or hourglass deformity demonstrated favorable improvements in penile curvature and bother score.
- Resolution or improvement of indentation and/or hourglass deformity can be attained, so ILI CCH indications could be expanded to include patients with these deformities.