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### Title

Can You Go the Distance: Collagenase Clostridium histolyticum Manipulation at 1 Month after Injection.

### Permalink

<https://escholarship.org/uc/item/0kx2109j>

### Journal

Plastic and Reconstructive Surgery, Global Open, 11(9)

### ISSN

2169-7574

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### Publication Date

2023-09-01

### DOI

10.1097/GOX.00000000000005239

Peer reviewed

# Can You Go the Distance: Collagenase *Clostridium histolyticum* Manipulation at 1 Month after Injection

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**Summary:** Collagenase *Clostridium histolyticum* is a popular treatment in Dupuytren contracture. Current guidelines are for manipulation 24 hours to 7 days after injection. We present a case of successful manipulation 28 days after injection. (*Plast Reconstr Surg Glob Open* 2023; 11:e5239; doi: 10.1097/GOX.0000000000005239; Published online 7 September 2023.)

Collagenase *Clostridium histolyticum* (CCH) has become more popular for the treatment of Dupuytren contracture cords since its Food & Drug Administration approval in 2010. Initial recommendations focused on manipulation 24 hours after injection of CCH to ensure sufficient time for collagen lysis of the cord without healing. However, delaying manipulation to 2–7 days after injection has equivalent efficacy with improvements in postinjection swelling, skin tears, and practice management.<sup>1,2</sup> We present a case of Dupuytren disease with successful cord rupture with delayed manipulation at 28 days after CCH injection.

This patient was a 76 year-old right-hand-dominant woman of Scottish descent with recurrent right hand disease despite treatment with CCH 2–3 years prior. On examination, there were pretendinous cords over the right middle, ring, and small fingers, as well as a radial lateral cord on the index, ring, and small fingers and an ulnar lateral cord on the small finger. The metacarpophalangeal, proximal interphalangeal, and distal interphalangeal joints of the hand were held in flexion contractures greater than 30 degrees each. The tabletop test was strongly positive (Fig. 1).

The total amount of CCH injected was 1.8 mg (two vials), as per manufacturer guidelines, into the index finger radial lateral cord, ring finger radial lateral cord, small finger radial and ulnar lateral cords, and ring finger pretendinous cord, with plans for manipulation in 2 days. However, she contracted coronavirus infection and was unable to follow up until 4 weeks after injection. Repeat

injection was offered but she requested a trial of manipulation to rupture the Dupuytren cords.

After administering local anesthesia, manipulation of the right hand was performed with rupture of the previously injected cords and restoration of full active and passive motion to all fingers (Fig. 2). This did result in skin tears over the metacarpophalangeal joint on the ring and small finger, but there was no exposed tendon or bone.<sup>3</sup> The open skin tears were dressed with antibiotic ointment and a soft dressing. A Hely Weber Xtender finger extension splint was applied to maintain the fingers in full extension.

To our knowledge, this is the longest interval between injection and manipulation of CCH, to date. This report serves to deepen our understanding of CCH injection and manipulation. The literature supports up to 1 week between injection and manipulation with good success.<sup>2</sup> Our hope is to further the understanding of collagenase and its ability to dissolve Dupuytren cords in patients with delayed presentation for manipulation.

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## DISCLOSURES

Dr. Prosper Benhaim is on the speaker bureau for Endo Pharmaceuticals. All the other authors have no financial interest to declare in relation to the content of this article. All sources of funds supporting this study are under the University of California Los Angeles' auspices.

## REFERENCES

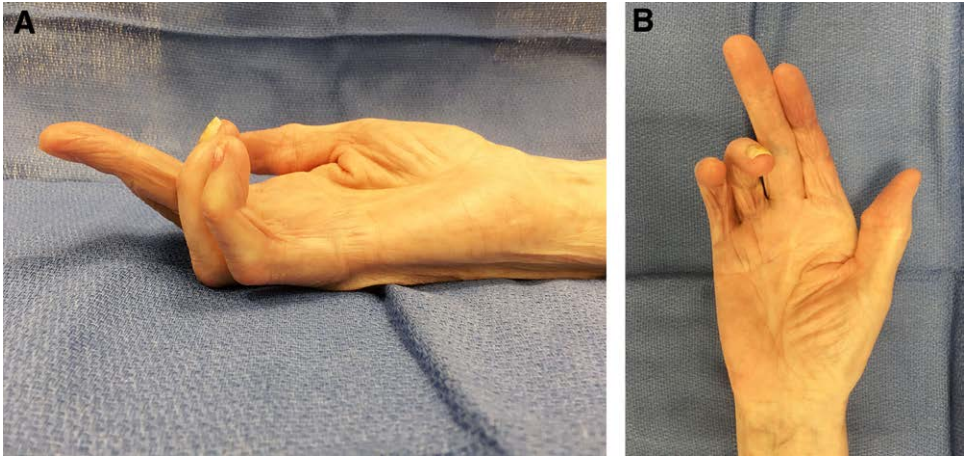
1. Kaplan FT, Badalamente MA, Hurst LC, et al. Delayed manipulation after collagenase *Clostridium histolyticum* injection for Dupuytren contracture. *Hand (N Y)*. 2015;10:578–582.
2. Reynolds B, Tobin V, Smith JA, et al. The effectiveness of manipulation of fingers with Dupuytren contracture 7 days after collagenase *Clostridium histolyticum* injection. *J Hand Surg Eur Vol*. 2020;45:286–291.
3. Wei DH, Canton MB, Wakefield DB, et al. Risk factors for skin tears following collagenase *Clostridium histolyticum* to treat Dupuytren contractures. *J Hand Surg Am*. 2020;45:989.e1–989.e10.

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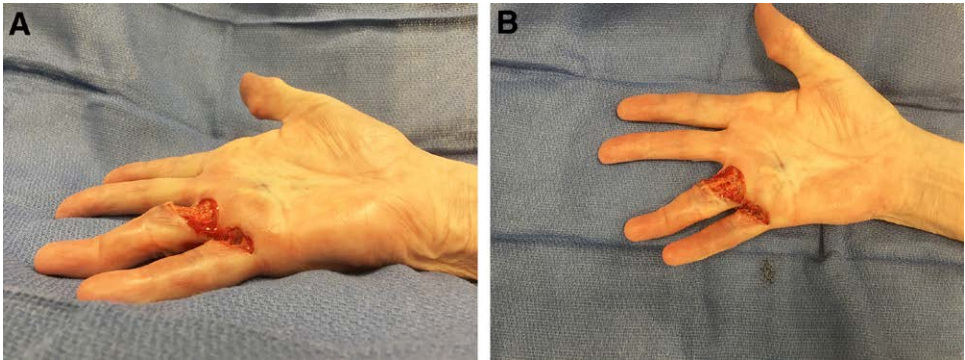
Received for publication May 24, 2023; accepted July 18, 2023.

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DOI: 10.1097/GOX.0000000000005239



**Fig. 1.** Premanipulation photographs of the right hand in lateral (A) and anterior (B) in full extension.



**Fig. 2.** Postmanipulation photographs of right hand in lateral (A) and anterior (B) in full extension.