

Outcomes Following Repeat Collagenase Treatment of Dupuytren Contracture

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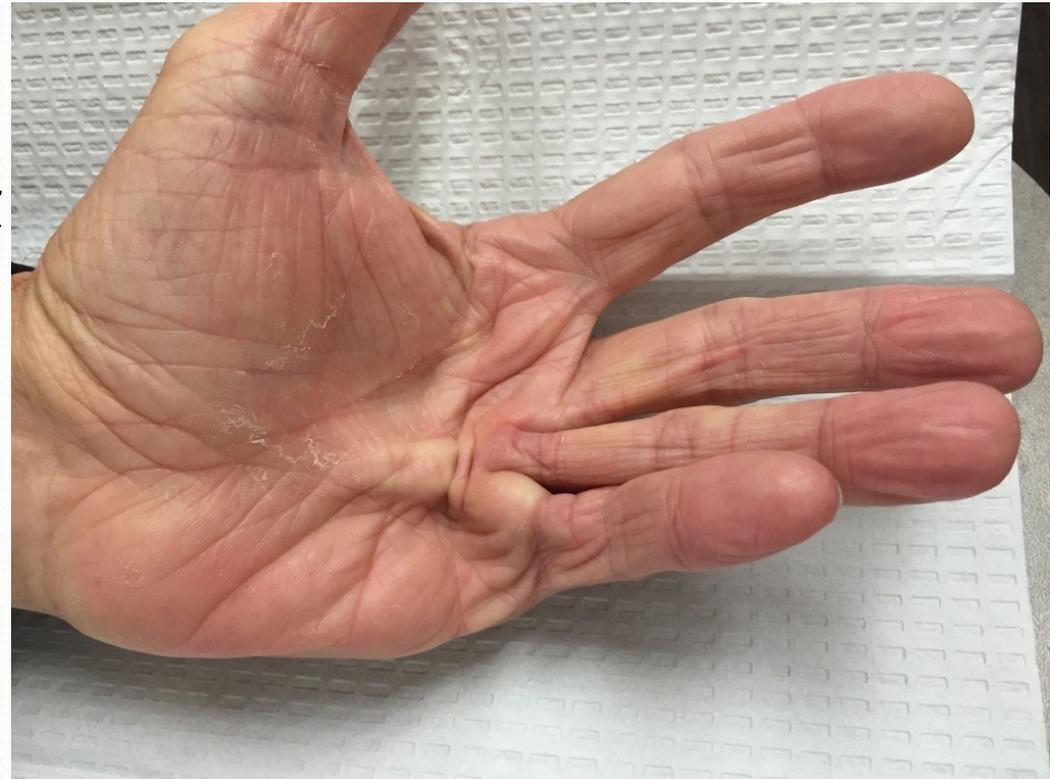
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Dupuytren Contracture

- ❑ Progressive, fibroproliferative disorder of the hand
- ❑ Characterized by the formation of nodules and cords in the palmar and digital fascia
- ❑ Various surgical and nonsurgical treatment options available to manage symptomatic contractures



Collagenase

- ❑ Injectable collagenase from clostridium bacteria
- ❑ Disrupts collagen types found in nodules and cords
- ❑ 1 to 2 days after injection, the treated joint undergoes manipulation to facilitate cord rupture



Purpose/Hypothesis

- ❑ Dupuytren contracture has a high recurrence rate
- ❑ Little research on outcomes for repeat collagenase injections
- ❑ Are repeat injections just as effective?

❖ Hypothesis:

Dupuytren contracture will respond less effectively to collagenase treatment when a digit has been previously treated with collagenase therapy



Methods

- ❑ Retrospective chart review was performed on 332 patients treated with collagenase injection for Dupuytren contracture from 2009-2019
- ❑ Second review was performed to distinguish patients who received repeat collagenase injection in the same digit for recurrence
- ❑ Data collected included pre and post collagenase treatment:
 - Total flexion contracture of the digits
 - Complete corrections
 - Skin tears
 - Adverse events

Results

- 45 patients received repeat injections for recurrence
- 59 total digits
- Mostly men
- Most common digit treated for recurrence was small finger

Number of patients	45	
Sex		
Male	37	82%
Female	8	18%
Total digits treated	59	
Hand		
Left	23	49%
Right	24	51%
Digit		
Index	1	2%
Long	1	2%
Ring	26	44%
Small	31	52%

Results

Total Flexion Contracture (Degrees)	Initial Treatment	Repeat Treatment	p-value
Prior to Injection	63.02 +/- 34.41	64.92 +/- 34.90	0.70
Post-Manipulation	4.58 +/- 15.43	5.47 +/- 20.17	0.73
Improvement	58.46 +/- 32.61	59.44 +/- 34.70	0.87

- There was no statistically significant difference between the groups for pre-injection contracture, improvement, or post-manipulation contracture
- Complete correction was achieved in 83.1% of digits in Initial Treatment group compared to 79.2% in Repeat Treatment group

Results

Post-Injection Manipulation Visit	Skin Tears	Complications
Initial	19/59 (32.2%)	2/59 (3.4%)
Repeat	18/59 (30.5%)	5/59 (8.5%)

- ❑ Adverse event rates and skin tears were similar between the groups
- ❑ Axillary lymphadenopathy / swelling was the most common adverse event reported

Skin Tears versus Adverse Events

- ❑ Skin tears are often considered an expected outcome of manipulations of severe contractures and therefore not an adverse event
- ❑ Our results were consistent with those in the literature (approximately 31%)
- ❑ Adverse events were also similar between the groups
 - One study indicated an increase in adverse events in hands that had previously been treated surgically



Discussion

- ❑ Collagenase treatment for Dupuytren contracture yields effective total flexion contracture correction.
- ❑ Repeat collagenase treatment for a previously treated digit yields similar deformity correction and complete correction rates.
- ❑ Skin tears and adverse events were similar between the two groups.

Next Steps

- ❑ Many patients with Dupuytren contracture explore multiple repeat collagenase injections throughout their lifetimes as contracture recurs.
- ❑ Further studies may examine the effectiveness of repeat therapy more than once in a digit.
- ❑ Also may compare times to recurrence for repeat treatments



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