Long-term follow-up after successful treatment of Dupuytren’s contracture with collagenase Clostridium histolyticum: patterns of recurrence 3 years later


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INTRODUCTION: Dupuytren’s disease is a progressive, fibroproliferative condition characterized by the development of collagen cords in the palmodigital fascia. Treatment options include fasciectomy, fasciotomy, and collagenase injection. While the efficacy of collagenase Clostridium histolyticum (CCH) for correcting Dupuytren’s contracture (DC) has been established in Phase III trials, there is limited information about its long-term durability.

OBJECTIVES: We evaluated the patterns of, and factors contributing to, recurrence of DC after treatment with CCH.

METHODS: CORDLESS is a 5-year follow-up study to determine long-term safety and recurrence rates in patients who received 1 CCH injection and had 1 post-injection efficacy assessment in one of 5 previous studies. Clinical success was defined as a reduction in contracture to 5°; recurrence was defined as an increase in contracture by 20° with a palpable cord. Partial improvement was defined as a reduction in contracture by 20°; non-durable response was defined the same as recurrence, in joints where partial improvement was achieved. Patients were re-evaluated annually; data from the first 3 years were analyzed.

RESULTS: Of the 648 metacarpophalangeal (MP) and 432 proximal interphalangeal (PIP) joints treated with CCH, 70% and 40% achieved clinical success. After 3 years, 27% of MP and 56% of PIP joints had recurrence. For MPs, recurrence rates were higher in joints with low (ie, 50°) vs high (ie, >50°) baseline severity (28% vs 18%). For PIPS, recurrence rates were higher in joints with high (>40°) vs low (40°) baseline severity (71% vs 50%). For partial improvement, 24% of MPs and 35% of PIPS achieved this endpoint. After 3 years, 38% of MPs and 63% of PIPS had a non-durable response. For MPs, there was no meaningful difference in rates by low or high baseline severity (35% vs 39%); however, for PIPS, non-durable response rates were higher in joints with high vs low baseline severity (68% vs 32%). Although gender was not a statistically significant factor for recurrence, age <65 years (p=0.02), family history of the disease (p <0.003), and bilateral severity (p<0.001) were associated with a significantly higher risk for recurrence. No new, treatment-related adverse events (AEs) or serious AEs were identified. Most patients developed antibodies to CCH; however, there was no evidence of decreased efficacy or safety concerns. Antibody titers decreased over time, and there were no reports of systemic anaphylaxis.

CONCLUSION: In general, the likelihood of recurrence is lower 3 years after clinical success vs partial improvement in CCH-treated joints. Recurrence/non-durability was lower in PIP joints with lower vs higher baseline severity. Several factors, including demographic and clinical characteristics can influence recurrence and non-durable response rates.


Keywords: Collagenase, Dupuytrens contracture, Long-term follow-up, Recurrence