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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 bilaterality ($p<0.001$) 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.

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