Stenosing tenosynovitis, or trigger finger, is commonly encountered by primary care physicians, orthopaedic surgeons, and hand specialists, who may respond to any of a number of nonoperative measures, including activity modification, nonsteroidal anti-inflammatory drugs, splinting, and corticosteroid injections. Long-acting corticosteroid injection has become the primary method of initial treatment for the symptomatic trigger finger, with a high reported rate of success, particularly in patients without diabetes with the involvement of a single digit and a short duration of symptoms. Injections of corticosteroids into the flexor tendon sheath are believed to work by reducing tenosynovial swelling and also A-1 pulley thickening to decrease the mismatch between the volume of the flexor tendon sheath and its contents so that the flexor tendon no longer catches in a stenotic sheath. Many different injection techniques and corticosteroid preparations have been reported.

Although corticosteroid injections have high success rates in the range of 60% to 92% in the published short-term data, clinicians have noted variability in the efficacy in certain patients who do not respond to one or more injections, most notably in diabetic populations. Furthermore, all previous reports in the literature have been limited by short-term follow-up in the range of months to a maximum of three years, and little is known about the long-term efficacy of corticosteroid injections for this condition. Although complications are infrequent, reported complications of injections include local pain, fat atrophy, elevations in blood and urine glucose levels in diabetic patients, and rarely reported complications of tendon or pulley ruptures.

Often patients will ask, “What is the chance that this injection will take care of my problem for good?” In the current study, Wojahn et al. reported the outcome of a first-time corticosteroid injection for trigger finger with a focus on the long-term outcomes to help answer this question. The study evaluated a cohort of 366 patients with a follow-up duration of at least five years to up to ten years, adding important long-term data to the literature on efficacy of trigger finger corticosteroid injection. Failure of an injection was defined as the need for a subsequent injection or surgical release as documented in medical records. The authors are to be commended on their attempt to interview patients who did not return for follow-up visits in the office in an attempt to minimize selection bias that might otherwise overestimate the success rate in patients who did not seek further injection or surgical treatment. Results were stratified as a function of sex, age, type of symptoms, presence of multiple trigger digits, and presence of diabetes.

The authors reported a 45% overall long-term success rate after a single injection at the time of the latest follow-up; this number was lower than that previously reported in the literature for short-term success rates. Regression analysis identified that female sex and the presence of a single trigger digit compared with multiple trigger digits were predictive of higher success rates. An increasing failure rate of an injection with time in part explains the authors’ lower success rate compared with results reported in previous studies with shorter-term follow-up, but interestingly the tendency for failure with time was not simply linear as reported by prior authors. Kaplan-Meier survival analysis identified that the vast majority of treatment failures occurred in the first two years, and there was a plateau of treatment failure beyond this time. Specifically, the finding that success beyond two years is likely to predict lasting symptom relief is a useful finding for the clinician to counsel patients on the likelihood of success of a single injection.

There were some aspects of study design that limit interpretation of the data. The authors reported results of one particular injection technique and one corticosteroid type and dose, and the results of the current technique and corticosteroid type may not be generalizable across other methods of injection and types of corticosteroid preparations. Furthermore, commonly more than one injection is used with ultimate success, and although the authors decided to report a second injection as a treatment failure for methodological reasons, a successful result after a second injection would likely not be considered a failure to the patient who is able to avoid surgical treatment.

Wojahn and colleagues have made an important contribution to the literature in allowing treating physicians to discuss with patients the likelihood that a single corticosteroid injection will eliminate their symptoms in the long term. To my knowledge, this is the longest-term study to ever collect data on the results of corticosteroid injections for trigger finger in a large series of patients.
Such data will help providers and patients make informed decisions on the choice of nonoperative or operative measures to treat this commonly encountered problem.

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