Interdigital injection of botulinum toxin for patients with Raynaud phenomenon

Lucía Quintana-Castanedo, MD, Marta Feito-Rodríguez, MD, and Raúl De Lucas-Laguna, MD
Madrid, Spain

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SURGICAL CHALLENGE

Botulinum toxin injection has demonstrated to be a simple and cost-effective option in pain reduction, promoting healing of digital ulcers, and decreasing the frequency of vasospastic attacks in patients with Raynaud phenomenon.[1,2] A universal injection technique and optimal dose to achieve adequate symptom control are lacking. Some of the reported procedures, such as proximal and distal palmar injection techniques, are painful and often require sedation or anesthetic blockade.

THE SOLUTION

The interdigital technique is an alternative approach, well tolerated, that can be performed in the outpatient setting without any type of anesthetic management (Video 1, available at http://www.jaad.org). Botulinum toxin is diluted in 2.5 mL of sterile normal saline solution, and injections are performed using a 30-gauge needle. A total of 36 IU of botulinum toxin are injected into each hand as follows: 8 IU into each finger web space, sparing the thumb web space, and 4 IU into each side of the thumb and the cubital aspect of the fifth finger metacarpophalangeal joint. Our personal experience has taught us that by sparing the thumb web space, we can minimize the loss of strength in the pincer grasp without losing efficacy. The effect of botulinum toxin is long-standing, with a mean period of 10 to 12 months between subsequent injections. This allows an optimal symptom control with only 1 or 2 injections per year.

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Correspondence to: Lucía Quintana-Castanedo, MD, Paseo de la Castellana 261, ZC 28046 Madrid, Spain. E-mail: luciaquintana.e@gmail.com.
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