

Hypopigmentation After Triamcinolone Injection for de Quervain Tenosynovitis

Jing Liang, MD and Kevin McElroy, DO

From the Department of Rehabilitation Medicine, JFK Johnson Rehabilitation Institute, Edison, New Jersey.

Financial disclosure statements have been obtained, and no conflicts of interest have been reported by the authors or by any individuals in control of the content of this article.

0894-9115/13/9207-0639/0

American Journal of Physical Medicine & Rehabilitation

Copyright © 2012 by Lippincott Williams & Wilkins

DOI: 10.1097/PHM.0b013e318269ebdc

A 35-yr-old woman with no significant medical history reported a 1-wk history of left wrist pain at the radial aspect of the wrist and was diagnosed with de Quervain tenosynovitis. The left extensor pollicis brevis and abductor pollicis longus tendon sheaths were injected with triamcinolone 20 mg and 0.5 ml of 1% lidocaine under ultrasound guidance. The procedure was uneventful. The patient was also given a thumb spica splint to be worn for 1 wk. The patient reported 90% pain relief 1 wk after injection but at 8 wks noticed progressive depigmentation proximal to the injection site. Depigmentation began insidiously near the site of injection and then extended proximally. Muscle bulk and strength were normal in the affected limb. There was no tenderness or paresthesias at the affect area. The lesion measured 2.5×1.5 cm (Fig. 1). During a subsequent visit, the patient reported that pigment began to return 6 mos after injection.

De Quervain tenosynovitis is a common pathology in an array of overuse syndromes. Treatment options for this condition consist of medication, hand orthosis, and corticosteroid injection. Hypopigmentation and skin atrophy are known possible adverse effects of steroids when applied topically or injected locally.¹ Lymphatic uptake of corticosteroid crystals explains the linear extension of the hypopigmentation; however, the mechanism by which depigmentation occurs is not known.² Venkatesan and Fangman³ demonstrated that melanocytes are intact in steroid-induced hypopigmentation, which indicates that steroids may in fact impair the functions of melanocytes.



FIGURE 1 Depigmentation of the injection area.

Similar to other case reports, the onset of depigmentation was approximately 2 mos after injection, and pigment began to return at 6 mos in our patient.^{2,3} Depigmentation seems to be more likely with triamcinolone compared with other steroids secondary to its intrinsic properties: larger size, higher tendency to aggregate, and higher density.⁴

The case reports cited in this article involved hyperpigmented individuals. It is also known that these patients are at higher risk to develop hypopigmentation with steroid injections.² Clinicians should avoid using triamcinolone when injecting lesions that are close to the skin surface, especially in hyperpigmented patients. Using steroids with smaller particles and less tendency to aggregate will result in lower incidence of depigmentation.

REFERENCES

1. Carlton AR, William WB: Corticosteroid injection for treatment of de Quervain's tenosynovitis: A pooled quantitative literature evaluation. *J Am Board Fam Pract* 2003;16:102-6
2. Kaur S, Thami GP: Intralesional corticosteroid induced perilesional and perilymphatic hypopigmentation. *Indian J Dermatol Venereol Leprol* 2002;68:356-7
3. Venkatesan P, Fangman WL: Linear hypopigmentation and cutaneous atrophy following intra-articular steroid injections for de Quervain's tendonitis. *J Drugs Dermatol* 2009;8:492-3
4. Derby R, Lee SH, et al: Size and aggregation of corticosteroids used for epidural injections. *Pain Med* 2008;9:227-34

All correspondence and requests for reprints should be addressed to: Jing Liang, MD, c/o Kevin McElroy, DO, Department of Rehabilitation Medicine, JFK Johnson Rehabilitation Institute, 65 James Street, Edison, NJ 08820.