

CLINICAL IMAGING

## Permanent hypopigmentation after triamcinolone injection for tennis elbow

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A 52-year-old Latino male without significant medical history reported 1 month of left lateral elbow pain that worsened with repetitive movement of his wrist. He was diagnosed with lateral epicondylitis (tennis elbow) and initially treated with non-steroidal anti-inflammatory drugs and rest. Due to lack of improvement, he received a local triamcinolone injection with symptoms relieved after a few days. Approximately 6 weeks after the procedure, he noticed discoloration of the skin in the treated area (see image); at this time, this hypopigmentation has remained unchanged for 2 years (Fig. 1).

Injection of inflamed joints and soft tissues is a very common practice in the primary care office and is preferred over oral therapy due to high local efficacy and less systemic side effects. Among reported side effects, dermatological conditions are infrequent but can include irritation, perilymphatic atrophy, soft tissue calcification,

sterile abscess, ecchymosis, allergic rash, and transitory or permanent hypopigmentation (1).

Previously, case reports have documented local skin hypopigmentation after intralesional or intraarticular injection of steroids in different sites (2, 3). Hypopigmentation usually develops after a few weeks and, in the majority of cases, resolves after a few months (3, 4). The exact mechanism that causes this type of lesion is unknown, but a previous report indicated that melanocytes are intact, so it has been theorized that steroids potentially impair some of the functions of these cells (4, 5). The reports are more frequently in dark-skinned individuals and can present with a linear pattern due to possible lymphogenous or vascular spread of the corticosteroid (6). Triamcinolone is one of the preferred steroids for these injections due to specific pharmacologic properties that increase the duration of action. However, as a macromolecule with suspended crystals, it can spread along lymphatic channels in the superficial skin tissues and has been noted to cause hypopigmentation more frequently than other commonly used steroids, such as methylprednisolone and hydrocortisone (7, 8).



Fig. 1. Hypopigmentation extending in linear pattern after steroid injection for tennis elbow.

### Conclusion

The consent process for intralesional or intraarticular steroid injections should explain in detail to patients the uncommon but esthetically notable side effect of hypopigmentation, especially in dark-skinned individuals.

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