Intra-articular steroid injections are often utilized for patients with osteoarthritis and are a relatively safe therapy. Although hypopigmentation is a well-known adverse effect of topical steroids, it is an uncommon side effect of injected steroids, thereby posing a diagnostic challenge. Intra-articular injection of steroids can also spread into lymphatic or vascular tissues leading to a reticulate pattern making the diagnosis even more difficult. We report a case of reticulate cutaneous hypopigmentation following serial steroid injections to the left knee in a 69-year-old African American female. Biopsy demonstrated a mild superficial perivascular lymphocytic infiltrate, PAS staining was negative, and MART-1 staining showed no reduction in melanocytes. Together these findings supported our clinical diagnosis of hypopigmentation secondary to steroid injections. Although there is no medical therapy proven to be effective, cessation of intra-articular steroids often results in complete or partial repigmentation. Unfortunately, our patient’s joint pain prevented her from discontinuing her steroid therapy.

**Case Report**

A 69-year-old African-American female presented to dermatology clinic with hypopigmented patches on the left lower extremity of one years’ duration. She had not tried applying any topical therapies and noted that her cutaneous lesions had remained stable since they developed. Past medical history was significant for left knee osteoarthritis that had been treated with intra-articular injections to the same location multiple times over the course of a few years, as well as breast cancer treated with paclitaxel (completed four years prior) and one year of trastuzumab (completed three years prior). She never received phototherapy and had no known personal or family history of autoimmune disease. See ‘Clinical Findings’ and ‘Biopsy Findings’ for cutaneous exam and histological findings. She was diagnosed with steroid-induced hypopigmentation secondary to her intra-articular steroid injections.

**Management/Treatment**

She was initially prescribed tacrolimus 0.1% ointment, but this medication was not covered under her insurance plan so she was not able to use this medication. She was also informed that cessation of her intra-articular steroids injections will help with repigmentation. Unfortunately, her severe joint pain precluded her from stopping.

**Discussion**

Common adverse effects of injectable steroids include atrophy of the skin, irritation at the injection site, alopecia, telangiectasia, striae, and acneiform eruptions. The development of hypopigmentation after intra-articular steroid injections has been reported in the literature as well, albeit quite rarely. Hypopigmentation is more prominent in patients with more heavily pigmented skin and usually occurs several months after receiving steroid injections. Although the pathogenesis of steroid-induced hypopigmentation is unknown, it has been proposed that steroids interrupt melanin synthesis. The spread of clinical hypopigmentation beyond the injection site is thought to be due to spread of the drug into lymphatic or vascular tissues. While no medical therapies have consistently proven efficacious for this condition, fortunately, cessation of steroids often results in complete or partial repigmentation. We present this case to highlight a relatively uncommon cutaneous side effect of a drug that is used frequently for the treatment of osteoarthritis. We also encourage clinicians to consider this entity in the differential diagnosis of vitiligo and post-inflammatory hypopigmentation in patients presenting with dyspigmentation overlying or around joint sites.

**References**