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Letter

Dramatic hyperpigmentation of keloids after intralesional triamcinolone acetonide injection

WL Koh, SPR Lim

Department of Dermatology, Changi General Hospital, Singapore

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Correspondence:

Dr. Wei Liang Koh
Koh_Wei_Liang@hotmail.com
Department of Dermatology, Changi General Hospital
2 Simei Street 3 Singapore 529889
Telephone number: +6593697325
Fax number: +6567816202

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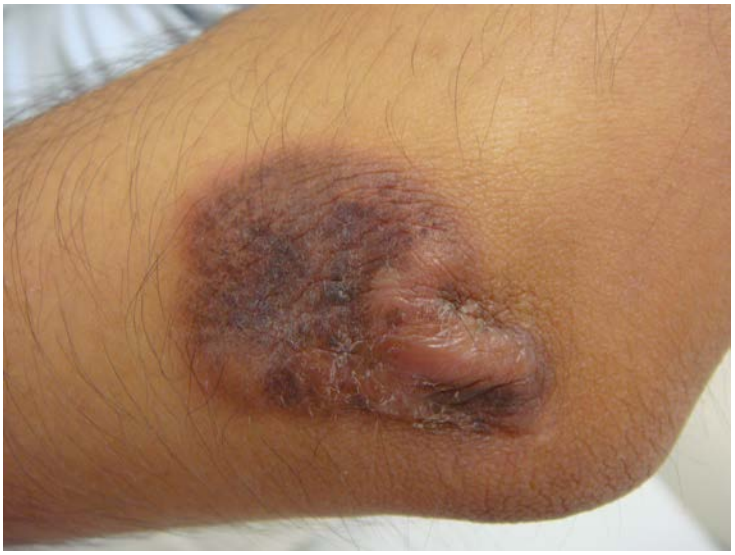
Letter to the editor

A 20-year old woman presented to our clinic for multiple keloids owing to various injuries over 3 years. These keloids were distributed over the flexor aspect of the left forearm, the lateral aspect of the left elbow and the superomedial aspect of the left calf. The patient was anxious for treatment to make the keloids flatter.



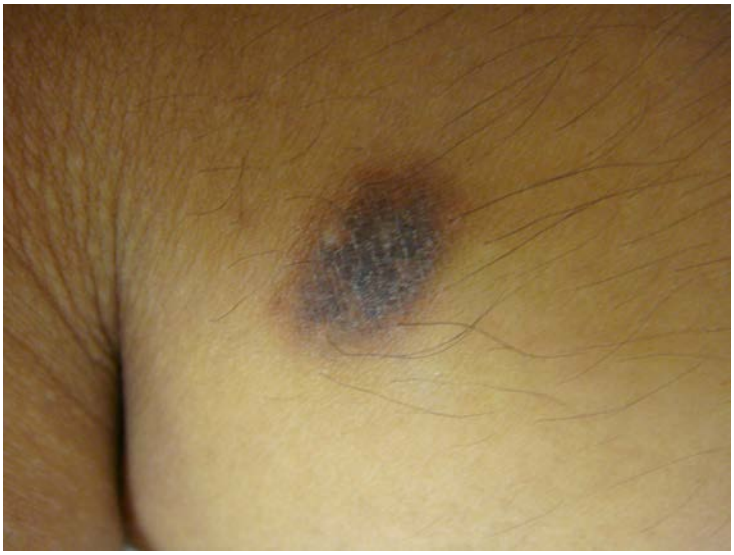


Figure 1. Keloid over lateral aspect of left elbow, flatter after intralesional triamcinolone acetonide injection but with ensuing brownish-black hyperpigmentation. **Figure 2.** Keloid over superomedial aspect of left calf, flatter but with greyish-black hyperpigmentation changes after intralesional triamcinolone acetonide injection.

Examination revealed two linear thick keloids (3 cm and 2 cm long respectively) over the flexor aspect of the left forearm, one nodular keloid (3.5 cm by 2.5 cm) over the lateral aspect of the left elbow, and one thick keloid (1.5 cm by 1 cm) over the superomedial aspect of the left calf. The scars were skin-colored, pink to light brown in color.

Our patient underwent monthly intralesional triamcinolone acetonide injection (10 mg/ml) to the keloids over 3 months. On review one month after the last injection, the keloids, though flatter, were visibly darker in color (dark brown to greyish-black). Surprisingly, the patient wished to continue with additional injections. She was advised to hold off because the hyperpigmentation of the keloids was now more prominent than the thickness. Topical betamethasone valerate 0.05% ointment was prescribed (twice-a-day application). On review 2 months later, flatter keloid scars, almost back to normal skin coloration was seen over sites previously described.

Discussion

Intralesional corticosteroid injection is one of the mainstays of treatment for keloidal scarring. Adverse effects include atrophy, telangiectasia, and pigmentary changes [1, 2]. Although post-injection hypopigmentation and hyperpigmentation changes have been described [3, 4], it is the former that is much more commonly seen in our local practice. The mechanism of pigmentary changes after local corticosteroid injection is still largely unknown. One postulation is that these are post-inflammatory changes, associated with the dermatitis that follows discontinuation of the corticosteroid ('rebound phenomenon') [4, 5]. Because our patient has Fitzpatrick skin type IV in keeping with her ethnic origin, these post-inflammatory hyperpigmentation changes can be even more pronounced. The regression after stopping injection might relate to gradual resolution of the inflammation. Topical corticosteroid was also used to reduce the post-inflammatory hyperpigmentation with some success. It is interesting to note that the patient was more concerned about the residual thickness of her keloids than the hyperpigmentation changes.

In conclusion, it is important to be cognizant of this rarely seen side effect of hyperpigmentation of keloids after intralesional corticosteroid injection If hyperpigmentation occurs, the possibility of regression should be made known to the patient. This case also highlights the different expectations different individuals may have in the treatment and outcome of cosmetically displeasing conditions such as keloids. This likely relates to the varied perception of beauty in the society, especially in multi-racial Singapore.

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