



AESTHETIC AND COSMETIC DERMATOLOGY (LASERS SEPARATE CATEGORY)

FACIAL GRANULOMATOUS DERMATITIS AFTER MICRONEEDLING THERAPY

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Background: Microneedling (i.e., collagen induction therapy) is an increasingly popular tool used in cosmetic dermatology and plastic surgery practices for the treatment of acne scars, photoaging, and for facial rejuvenation. A variety of topical cosmeceutical preparations are frequently employed before and after the microneedling procedure and have been rarely reported to be associated with adverse reactions, including foreign body granuloma formation.

Observation: An otherwise healthy 74-year-old female presented to our clinic with a 4-week history of a nonpruritic facial eruption appearing two days after having a session of microneedling, with a topical cosmeceutical marketed as containing growth factors being applied to her face prior to the procedure. She had had several microneedling sessions prior to the latest without any significant events. For treatment of the rash, she had been given emollients and a week of hydrocortisone 2.5% cream without any improvement. Physical examination revealed indurated red patches and plaques composed of agminated 1mm dermal papules on the lip, cheeks and chin where the microneedling had taken place. Biopsy revealed dense lymphohistiocytic inflammation and loose granuloma formation. There was no evidence of foreign bodies or hair keratin on polarization or viral change indicative of herpes simplex infection. PAS and Fite stain were negative for organisms. A diagnosis of granulomatous inflammation was made, thought to be most likely secondary to the microneedling procedure. The patient was patch tested to the cosmeceutical product without any reaction at 2, 3 and 5 days post-application. Topical triamcinolone 0.025% ointment was given for 10 days and proved to be ineffective. Intralesional triamcinolone was administered with some improvement.

Key Message: Microneedling with topical cosmeceutical preparations may be associated with adverse reactions including granulomatous dermatitis. Further investigation into the etiology of these reactions is warranted.

