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WILEY DERMATOLOGIC THERAPY

LETTER TO THE EDITOR

Management of complications of vitamin E injections into the face

Dear Editor,

Filler applications can be performed by specialists and even by other doctors who are not trained in this field or the personnel who are non-practitioners (Kamouna et al., 2015). Besides clinically approved filler materials, some unofficial materials with unknown ingredients sold on the Internet might be also used. The adverse effects due to the injections of vitamin E have been frequently encountered in the literature, recently.

A 33-year-old woman has attended to our outpatient clinic with the complaint of red, painful, indurated lesions on her face. She had injected vitamin E gel into the zygomatic region of her own face. After 2 months, there were three nodules, which were 2–4 cm in size, erythematous, indurated, and painful at palpation in both zygomatic regions. There were also 2 cm sized erythema and induration on both eyelids (Figure 1). A punch biopsy from the lesion revealed superficial and deep dermal perivascular, interstitial, and periappendiceal lymphohistiocytic infiltrate beneath the minimally hyperkeratotic epidermis. Telangiectatic capillary vessels were present in the superficial and middle portions of the dermis. The patient was evaluated as having a severe inflammatory reaction due to vitamin E injections. She was treated with systemic 0.5 mg/kg/day methylprednisolone, 1.5 mg/day colchicine, and 200 mg/day doxycycline. Additionally, the combination of 8 mg of steroid, 300 mg of clindamycin, and 50 mg of 5-fluorouracil was applied as 0.3 ml intralesional injections at 1 cm intervals. There were no any complications such as atrophy and telangiectasias due to the intralesional injections. The steroid dose was gradually tapered to zero over the ensuing 3 months. After 3-month treatment, there was approximately 80% regression in the size of the lesions (Figure 2).

The most common reactions due to foreign material injections are sclerodermoid reactions, subcutaneous infiltration, edema, hyperpigmentation, and deformation. Also, hepatosplenomegaly, acute kidney failure, disseminated lipogranuloma, and sudden death cases possibly caused by dissemination of the materials via hematologic or lymphatic routes are reported (Kamouna et al., 2015; Rollins, Reiber, Guinee, & Lie, 1997). In our case, we think that there has been a hematologic or lymphatic dissemination, too, because she had the similar reaction also on her eyelids, which were uninjected. The most frequent adverse effect due to lipid and vitamin injection is sclerosis lipogranuloma. In sclerosis lipogranuloma, fibrotic and granulomatous changes occur in subcutaneous fat

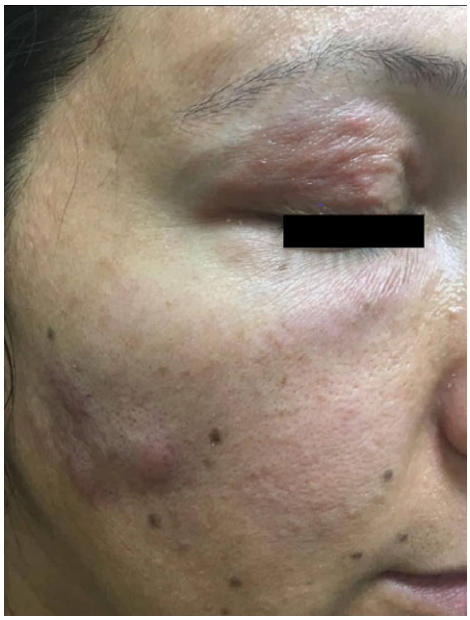

FIGURE 1 Erythematous nodules in the zygomatic region and eyelids

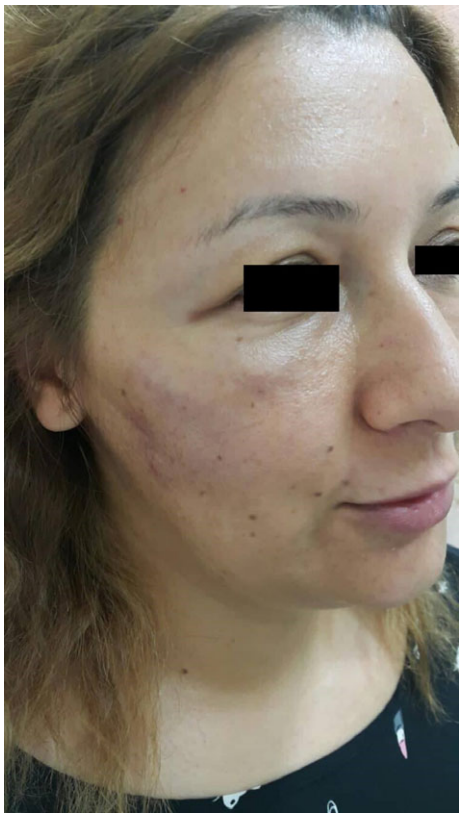

FIGURE 2 After 3 months of treatment

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tissue (Rollins et al., 1997). As for our case, histopathologically, the subcutaneous tissue was normal, but there was a granuloma formation. Similar reactions are observed with mesotherapy solutions containing vitamin E (Pugliese, Yaar, Al-Dawsari, Goldberg, & Garg, 2010).

The reactions against these foreign materials are very difficult to treat, and the cure rates are quite low. Extended-spectrum antibiotics, systemic and intralesional steroid, colchicine, allopurinol, topical calcineurin inhibitors, imiquimod, systemic bleomycin, or withdrawal of foreign material with a cannula are treatment options. Surgical treatment is another option for those who are unresponsive to all the treatments (Kamouna et al., 2015). We treated the patient with systemic 0.5 mg/kg/day methylprednisolone, 1,5 mg/day colchicine, and extended-spectrum antibiotic along with intralesional steroid, clindamycin, and 5-fluorouracil. One month later from the treatment, we observed approximately 60% regression in the lesions and at the end of the 3-month treatment; 80% regression was achieved.

There is no any definite algorithmic approach for the treatment of complications due to the injections of materials such as vitamins E and A. We achieved a successful treatment, without any complications, by using systemic corticosteroid and extended-spectrum antibiotic along with intralesional steroid, clindamycin, and 5-fluorouracil combination in a patient with a severe inflammatory reaction resulting from vitamin E injection. We think that this article sheds light on the treatment of the complications of vitamin E injections.

CONFLICT OF INTEREST

The authors have declared no conflicts of interest and have given their consent for the publication of this report. An informed consent is obtained from the patient for sharing the pictures and clinical data of the patient and for publishing.

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