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Letter

Injectable silicon oils - complications

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Abstract

There have been reports of the use of silicone oils in injectable form for cosmetic purposes since the 1940s. With the popularization of the use of this technique in the mid-60s, there have been a wide range of adverse effects reported. We report a 32-year-old woman, who had intramuscular injections of an unknown substance, which led to serious complications.

Keywords: Injectable silicone, siliconoma, complications

Introduction

The cosmetic use of injectable silicone oils were reported since the 1940s [1]. As the popularity of this modality increased in the 1960s [2] reports of adverse effects were soon described. A 32-year-old woman reported receiving intramuscular injections of an unknown substance in her legs for cosmetic purposes. About 4 years after the initial injections, she developed painful nodules and secondary infections, some episodes requiring hospitalization and intravenous antibiotic therapy.

Upon presentation to our clinic, physical examination findings included low-grade fever and mild leg pain. Inspection of the legs revealed skin erythema, particularly pronounced in the proximal leg. There were firm plaques and nodules, warm to touch, in comparison to unaffected areas (Figures 1).



Figure 1. A) Skin erythema with nodules. B) Skin plaque and nodules.

Punch biopsy of a firm area of the left leg was performed and revealed round cystic spaces of various sizes containing no birefringent translucent material (Figure 2). This confirmed the diagnosis of siliconoma. The treatment was commenced with oral prednisone 40 mg/day and over two months, there was a partial clinical improvement, with reduction of pain, erythema, and nodule size. At the 6 month follow up, the patient remained clinically stable, with persistent nodules and sporadic pain in the areas of previous injection of the silicone, but without significant active inflammation.

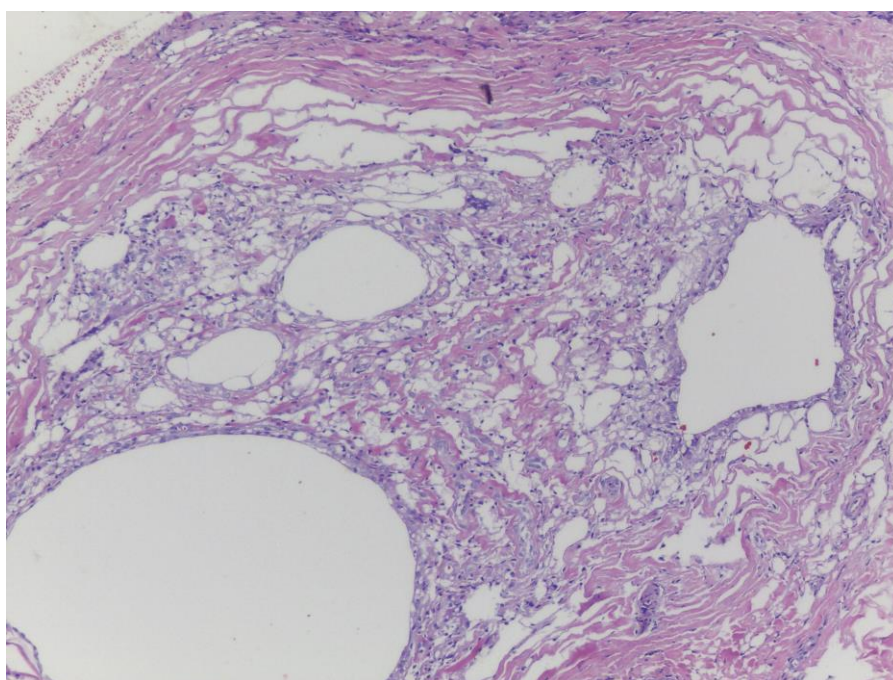


Figure 2. Foreign body cystic vacuoles of various sizes consistent with deposits of silicone and granulomatous reaction with multinucleated giant cells in the dermis (H&E stain).

Discussion

The term, siliconoma, was popularized in 1965 to characterize the foreign body reaction similar to that described in the case of other liquids such as paraffin [2-4]. Adverse effects and complications of injectable liquid silicone used as a filler can be acute, such as edema, ecchymosis, erythema, and dyschromia [2], or late, as granulomatous reactions, idiosyncratic reactions, migration, connective tissue disease, silicone embolization syndrome [5], and even death. Diagnosis can be difficult when the previous history of the injections of the substance is not known; the adverse effects can occur 20 to 30 years after the procedure [2,-4, 6].

Once the diagnosis of siliconoma has been established, generally the use of anti-inflammatory agents, antihistamines, corticosteroids, and systemic antibiotics may produce improvement [2, 4]. Surgical treatment is reserved for cases in which there is extensive and deep tissue involvement; surgical outcomes usually include poor cosmetic results and the requirement

for repeat procedures [2, 4]. The use of injectable silicone oils for aesthetic purposes should be strongly discouraged owing to the extensive side effect profile and the difficulty of treating complications.

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