Corticosteroids are the most widely used class of drugs in dermatology. In the past, allergic contact dermatitis to topical corticosteroids was rarely reported. In this article, we present a case of delayed type hypersensitivity to triamcinolone acetonide.

Corticosteroids are the most widely used class of drugs in dermatology. Although allergic contact dermatitis had seldom been reported in the past, recent studies in this decade have demonstrated that contact allergy to topically applied corticosteroids is common. However, sensitization to corticosteroids administered orally, parenterally, or intraleosionally has been reported infrequently. Allergic reactions to intralesional triamcinolone acetonide suspension have rarely been reported. We present a case of delayed type hypersensitivity to triamcinolone acetonide used intraleosionally for the treatment of a scar.

Case Report:
An 85-year-old woman developed a painful hypertrophic scar on her right index finger following excisional surgery of a squamous cell carcinoma. Three days after an intralesional injection of triamcinolone acetonide 10 mg/ml (Kenalog-10 injection, Apothecon®, Bristol Meyers Squibb, Princeton, NJ) a tender, firm, indurated, erythematous plaque developed at the injection site. A diagnosis of cellulitis was made and treatment was initiated with oral antibiotics. One month later, Kenalog-10 was again injected into the scar, and her finger became erythematous and edematous in 24 hours (Figure 1). Oral antibiotics were reinstituted, but at this point, an allergic reaction to the injection material was considered.

The patient's past medical history is important for lack of any other significant dermatologic disorders or use of topical or systemic corticosteroids.

Patch testing was performed to our standard screening series of 43 allergens and selected corticosteroids. Strongly positive 3+ spreading reactions were noted at 48 hours and 1 week to budesonide 0.1% in petrolatum and amcinonide 0.1% cream, and a weak 1+ positive reaction was observed to Kenalog-10, as is. The remainder of the tests were negative, including triamcinolone acetonide 1.0% in petrolatum, tixocortol pivolate 1.0% in petrolatum, and benzyl alcohol 1.0% in petrolatum, the preservative in the Kenalog-10 injection. An intradermal test to Kenalog-10, as is, was strongly positive at 72 hours (Figure 2). Scratch tests to Kenalog-10, as is, and pure triamcinolone ointment 1%, were weakly positive. A scratch test to benzyl alcohol was negative.

Comments
Systemically administered corticosteroids are an infrequent cause of either immediate or delayed allergic reactions, but do occur. Our patient exhibited a delayed type hypersensitivity reaction to the intralesional injection of triamcinolone acetonide suspension.
sion (Kenalog-10) on two separate occasions. Intra-
dermal testing to Kenalog-10 was strongly positive, as
were scratch tests to Kenalog-10 and triamcinolone
ointment 1.0%. Our patient was patch test-positive
to Kenalog-10, as is, but negative to triamcinolone
ointment 1.0%, which is probably due to differences
in percutaneous absorption. A strong reaction to
budesonide, a marker for corticosteroid allergy, suggests
allergy to Class B corticosteroids of Coopman et al.,
which triamcinolone acetonide and amcinonide are in-
cluded. Tixocortol pivolate, a marker for hydrocortisone
sensitivity, was negative on patch testing. The patient
denied the use of topical corticosteroids, and her only
known exposures to steroids were the intralesional in-
jections of Kenalog-10.

Overall, allergic reactions to triamcinolone ace-
tonide are uncommon. Topical sensitization occurs less
frequently to this agent than to others. Only 3.6% of
83 patients who were allergic to topical hydrocortisone
cross-reacted with triamcinolone acetonide.

A 1995 review of delayed systemic allergic re-
actions to corticosteroids noted that 24 cases had been
published in the literature. In two-thirds of these
cases, the diagnoses were supported by positive patch
or intradermal testing. The majority reacted to predni-
solone, prednisolone, or dexamethasone, but one pa-
tient developed a generalized papulovesicular re-
cision to oral triamcinolone acetonide.

There have been several reports of local reactions
to the intralesional injections of triamcinolone ace-
tonide. One case that also occurred during scar treat-
ment had positive intradermal tests to triamcinolone
acetonide powder 1.0% in saline as well as to Ken-
alogue-10, as is. This patient also had negative patch

FIGURE 2. Positive intradermal test to
triamcinolone acetonide at 72 hours.
REFERENCES