Treatment of Local, Persistent Cutaneous Atrophy After Corticosteroid Injection with Normal Saline Infiltration

Letter to the Editor:

I read with great interest the article by Shumaker and colleagues1 concerning the use of normal saline injection for treating steroid fat atrophy in four patients with great success. The authors stated that “To our knowledge, there is no precedent in the use of saline or any other compound to treat this problem.” Apparently, the authors did not find the articles that had been previously published concerning the tumescent use of saline in the treatment of steroid fat atrophy.2–4 The initial case was treated in June 2000, and I have lectured on the technique since 2000 in Germany, Mexico, Romania, Korea, Colombia, and Japan.5 I have received many e-mails from and made personal contacts at meetings over the years with physicians who have used the technique on a variety of areas of the face and body with successful results.

My personal theory as to why the saline injection works is that the steroid crystals in the tissues are placed back in suspension with the saline, and the body macrophages treat them as foreign bodies, removing the crystals from the local region. The steroid does not destroy the fat cells but allows the escape of fat (triglycerides) from the cells through enlargement of the cell pores (just as occurs with laser-assisted liposuction).6 Once the steroid is removed from the area, the fat reaccumulates in the fat cells over a period of several weeks. Therefore, it is not necessary to reinject the saline every week because the fat reaccumulation will occur given enough time (~3–4 weeks). It may be necessary to give a second injection after 1 month in an occasional case if not enough saline is injected initially, which is why I prefer to tumesce the area with saline. Even on the face, the saline swelling will dissipate overnight so that the patient can return to regular social contacts.

References

MELVIN A. SHIFFMAN, MD, JD
Section of Surgery, Newport Specialty Hospital, Tustin, California