Repair of Acne Scars With Dermicol-P35

Kevin C. Smith, MD

Acne vulgaris is a prevalent skin condition that can cause disfiguring residual scarring. While the complete removal of acne scars is unlikely, several treatments exist that can improve the appearance of acne scars. Dermal fillers offer a simple, nonsurgical corrective procedure that can provide improved skin texture.

Dermicol-P35 (Evolence [Ortho Dermatologics, Skillman, NJ]) is a new, highly purified, ribose cross-linked, porcine collagen–based dermal filler that has demonstrated low immunogenicity and results that persist for at least 12 months. This article presents the aesthetic results of a male patient treated with Dermicol-P35 for severe facial acne scars. (Aesthetic Surg J 2009;29:S16–S18.)

Acne vulgaris is a prevalent skin condition that can afflict men and women, generally beginning in the teen years. A common complication of acne is disfiguring residual scarring. Facial acne scars can have a devastating impact on self-esteem and quality of life for many acne sufferers. Acne scars are predominantly atrophic and can be classified as rolling, ice pick or pit-shaped, and deep or shallow boxcar.

While the complete removal of acne scars is unlikely, there exist a variety of treatments that can lessen their appearance. These include wire brush dermabrasion, laser resurfacing treatment, ablative fractional laser resurfacing, surgery (such as punch incision), and injected soft tissue fillers. Surface techniques can be especially useful for shallow scars, but dermal fillers may provide a better option for depressed scars. Dermal fillers offer a simple, nonsurgical corrective option that can improve skin texture and appearance. However, limited benefits have been observed with ice pick scars. Ideally, dermal fillers used for acne scar treatment should provide lasting results and should not induce further skin inflammation or the formation of granulomas.

Several types of dermal fillers have been explored for use in acne scar treatment. Biodegradable fillers include temporary fillers, such as collagen-based (Zyderm [Allergan, Santa Barbara, CA]) and hyaluronic acid-based (Restylane [Medicis Aesthetics, Scottsdale, AZ] and Juvéderm [Allergan, Santa Barbara, CA]) fillers, as well as semipermanent fillers, such as calcium hydroxylapatite gel (Radiesse [BioForm Medical, San Mateo, CA]) and poly-L-lactic acid (Sculptra [Dermik Laboratories, Bridgewater, NJ]). Permanent filler options include silicone fillers and polymethylmethacrylate combined with bovine collagen (Artefill [Artes Medical, San Diego, CA]).

Treatment with bovine collagen dermal filler has resulted in the improved appearance of soft scars, but no improvements in the appearance of ice pick scars. Similarly, the appearance of saucerized scars was found to improve with calcium hydroxylapatite treatment, but minimal or no improvement was observed for ice pick scars. Silicone microdroplet treatment has shown benefits for correcting broad-based depressed scars, with results lasting up to 30 years.

Bovine collagen dermal fillers have demonstrated efficacy, but are associated with sensitivity in some patients, require a pretreatment skin test, and provide shorter-term results than other dermal fillers. Dermicol-P35 (Evolence [Ortho Dermatologics, Skillman, NJ]) is a new, highly purified, porcine collagen–based dermal filler that has demonstrated low immunogenicity and therefore does not require a prior skin test. It is produced using the novel Glymaxtrix technology, which uses a natural sugar, D-ribose, to crosslink collagen molecules instead of a potential toxin, such as glutaraldehyde. In addition, results of Dermicol-P35 have been shown to persist for at least 12 months. This article presents the results of a male patient treated with Dermicol-P35 for the correction of severe facial acne scarring.

PATIENT AND PROCEDURES

Case Study

A 45-year-old male in good health with no comorbid conditions presented with facial scarring (a mixture of depressed scars and some ice pick scars on both cheeks) resulting from severe acne (Figure 1A, B). The patient had not received any previous acne scar treatment with a dermal filler. No topical anesthetic or ice was used before injection. Dermicol-P35 was supplied as a single-use, prefilled sterile syringe.

From the Niagara Falls Dermatology and Skin Care Center, Niagara Falls, Ontario, Canada.
At each visit, before collagen filler injection, the scars to be treated were marked and intradermal injections of normal saline were administered using a 1-mL insulin syringe (BD-II; Becton Dickinson, Franklin Lakes, NJ) with attached 30-gauge 8-mm needle. Each saline injection of 0.1 to 0.2 mL raised a hard wheal and caused hydrostatic dissection of the scar tissue. Injection discomfort was reduced by the local anesthetic effect of 0.9% benzyl alcohol preservative in the normal saline solution.

Approximately 2 minutes after the saline injection, 0.05 to 0.1 mL of Dermicol-P35 was injected into the mid dermis of each scar, using a 30-gauge half-inch needle. To further reduce injection discomfort, 0.15 mL of 2% lidocaine without epinephrine was mixed into each syringe of dermal filler. After each Dermicol-P35 injection, the treated area was immediately massaged to ensure proper placement of the filler. Improvements were monitored by referring to pretreatment photos taken under standardized oblique lighting conditions.

RESULTS

The patient underwent 2 treatment sessions, with a dose of 1 mL (1 syringe) injected at each treatment session.

Figure 1. A, B, Pretreatment view of a 45-year-old male with facial acne scars immediately before injections. C, D, One month posttreatment with 1 mL of Dermicol P-35. These photos were taken immediately prior to this patient’s second treatment. E, F, Two months after the first treatment and one month after the second treatment. The total cumulative dose of Dermicol P-35 was 2 mL.
The injection procedure was well-tolerated. Results were apparent immediately after each procedure, there was no down time, and there were no complaints of bruising or postprocedure discomfort. At the 1-month follow-up visit, the appearances of depressed scars and skin texture were still visibly improved (Figure 1C, D). Ice pick scars were still visible. No bruising, swelling, or granulomas were observed at this visit. The patient was so pleased that an additional 1 mL treatment was administered at the 1-month follow-up visit. At the 2-month follow-up visit, after a total of 2 mL of Dermicol-P35 had been injected over 2 sessions, the appearance of the depressed acne scars was greatly diminished (Figure 1E, F). The contour of the face was also smoother and greatly improved in the treated areas. Ice pick scars were still visible, but their appearance was minimized. There were no adverse events, no down time reported, and the patient was highly satisfied with his aesthetic outcome.

**DISCUSSION**

Severe facial acne can result in unsightly and permanent scarring. Dermal fillers offer a minimally invasive, non-surgical option for the correction of acne scars. Dermicol-P35 (Evolence) is a new dermal filler that has been shown to provide results lasting longer than 12 months and has low immunogenicity. The case reported in this article demonstrates the effectiveness of using Dermicol-P35 for the treatment of severe atrophic acne scarring. Dermicol-P35 administered immediately after distention of the scars with saline produced a high degree of correction, with no papules or other adverse events and high patient satisfaction. While the acne scars were not completely removed, their appearance (along with overall skin texture) was greatly improved.

**CONCLUSION**

Dermicol-P35 was used to reduce the appearance of acne scars in a male patient. After 2 treatments with Dermicol-P35, acne scars were visibly diminished and skin texture was greatly improved.

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**REFERENCES**


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Reprint requests: Kevin S. Smith, MD, FRCP, Niagara Falls Dermatology and Skin Care Center, Ltd., 201-6453 Morrison St., Niagara Falls, ON, Canada L2E 7H1. E-mail: ksmithderm@gmail.com.

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