

TREATMENT OF ATROPHIC ACNE SCARRING – DERMAROLLER VS DERMAPEN

Professor Tony Chu, FRCP

Dermatology Department, Imperial College, Hammersmith Hospital, London, UK

a.chu@imperial.ac.uk

Tony Chu

Department of Dermatology, Hammersmith Hospital, DuCane Road, London W12 0HS, UK

a.chu@imperial.ac.uk

00442083833264

00442083836789

Background

Percutaneous collagen induction has been used for some years in the treatment of atrophic acne scarring. It is most successful in rolling scars but will have some impact on box scarring. The most successful technique used to date is the Dermaroller. This is a mechanical device which incorporates surgical steel microneedles in a wheel which is rolled up and down the affected area. Needle length is generally 1.5mm and the skin is treated four times in three different directions. We have used this technique in our clinics for the last 4 years, treating over a 1000 patients. The results have been extremely good to date. The procedure is, however, painful and leaves the patient very red for 4 days after the procedure. The new Dermapen uses the same principal but rather than using a rolling action, the Dermapen moves the needles in and out at a rate of about 1000 times per second. This avoids the rolling injury to the skin that can occur with the Dermaroller.

Method

This was an open comparative study of Dermaroller and Dermapen in 60 patients with atrophic acne scarring to compare ease of use, patient preference and efficacy. Patients were randomised to receive either Dermaroller or Dermapen. All patients had had one previous treatment with the Dermaroller. All had predominantly rolling scars and none had active acne. Procedures were conducted by 3 dermatologists. Patients and dermatologist filled in a questionnaire about the ease of use and discomfort experience and length of down time. Depth of selected scars was measured using the Visioscan VC98 before and 3 months after treatment.

Results

Patients treated with the Dermapen unanimously felt that the procedure was much less painful than the Dermaroller and the downtime was significantly shorter with the Dermapen. Subjectively, patients treated with the Dermapen felt that their acne scarring had improved to a greater extent than patients with the Dermaroller. Visioscan data showed significantly greater reduction of depth of scars using the Dermapen compared to the Dermaroller.

Conclusion

Treatment of acne scarring has been significantly advanced with the introduction of the Dermaroller. The new Dermapen, however, has a number of advantages. The disposable needle heads are cheaper than a Dermaroller. Patients felt that the Dermapen was much less painful and had shorter downtime than the Dermaroller. Dermatologists felt it was easier to use and enabled sites such as the upper lip and nose to be treated with ease. The Dermapen also showed significantly superior reduction in scar depth after a single treatment.