

by Burkhart and Burkhart demonstrated that tacrolimus has superior efficacy to alclometasone dipropionate which, according to several classifications, is a mid-potent corticosteroid similar to hydrocortisone butyrate.

Finally, the authors write that in a 3-week study, topical steroids were found to be more effective than topical immunomodulators, but fail to mention that the comparator used in that study was pimecrolimus cream. To discuss our results in the context of pimecrolimus is not relevant due to the clear differences in potency between tacrolimus ointment and pimecrolimus cream. In conclusion, while patient satisfaction is of major importance, the study setting of Burkhart and Burkhart was not satisfactory with respect to evaluating the efficacy of treatment.

Department of Dermatology, Helsinki
University Central Hospital,
Meilahdentie 2, Helsinki, SF-00250
Finland
E-mail: sakari.reitamo@hus.fi

S.REITAMO

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Chemical extraction technique for tattoo removal

DOI: 10.1111/j.1365-2133.2004.06287.x

SIR, I write in response to the correspondence 'Adverse side-effects following attempted removal of tattoos using a non-laser method'.¹ Laser treatment is a modern technique for tattoo removal. Various lasers such as the Q-switched ruby laser, Q-switched Nd:YAG laser, CO₂ laser and Q-switched alexandrite laser are popularly used to remove tattoos. The adverse effects including textural change, scarring, hypopigmentation, hyperpigmentation, partial removal and tattoo colour darkening have been well addressed in the literature.^{2–4}

The Rejuvi Tattoo Removal chemical extraction method was developed recently as a new modality for both facial cosmetic tattoos and body tattoos.⁵ The technique involves application of the Rejuvi Tattoo Remover on the unwanted tattoo area using normal tattooing or a micropigmentation method. It is very close to a tattoo-over procedure.

The Rejuvi Tattoo Remover contains only cosmetic ingredients (International Nomenclature Cosmetic Ingredient or

International Cosmetic Dictionary) such as deionized water, zinc oxide, magnesium oxide, calcium oxide, isopropanol, triethanolamine and benzoic acid. This composition has low skin toxicity and is also quite antiseptic. The Rejuvi Tattoo Remover has a great chemical affinity to most tattoo pigments: it is capable of mobilizing tattoo pigments from the skin and blends well with them. The Rejuvi Tattoo Remover forms a scab with tattoo pigments on the treated skin area, which then peels off in 10–20 days. It is recommended to perform the treatment on a tattoo area not greater than 15 cm² in order to control the discomfort level after treatment. If needed, a second treatment should be performed on the same area after sufficient skin healing (usually about 3 months).

In approximately 5 years of study and practice, Rejuvi Tattoo Removal has been found to be noncolour-selective (it removes all tattoo pigments). In the initial study (98 patients), the success rate was 100% for removal of cosmetic facial tattoos (tattooed eyebrows) and 92% for body tattoos. The scarring rate was 0% for cosmetic facial tattoos and 6% for body tattoos. No pigmentary change was found for either type of tattoo.⁵ Compared with all other tattoo removal techniques, Rejuvi Tattoo Removal appears to be effective, safer, simple and cost-effective.⁶ Rejuvi Tattoo Removal can be used independently or together with laser techniques (pre- or post-treatment). Some typical results from Rejuvi Tattoo Removal are shown in Figures 1 and 2.

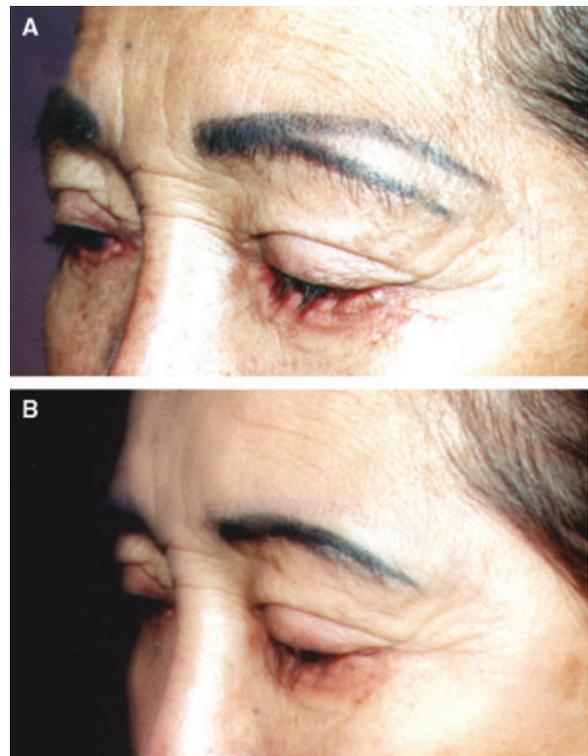


Figure 1. (A) The patient had two tattooed eyebrows. (B) The upper eyebrow was removed by chemical extraction technique.

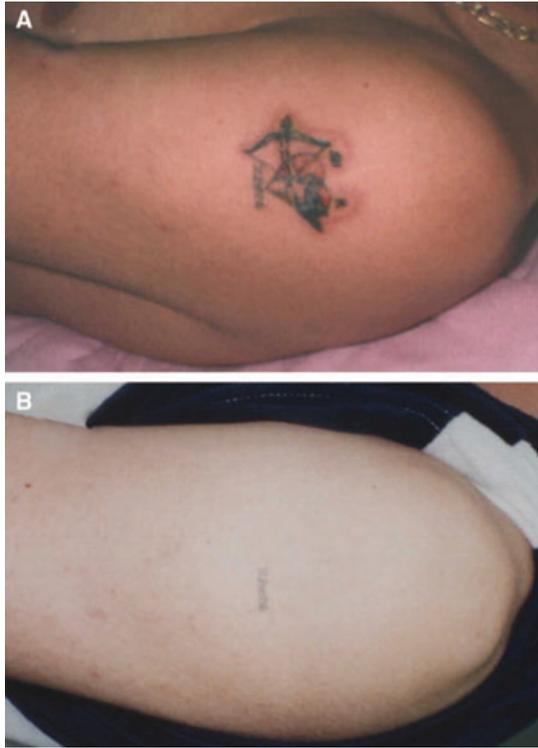


Figure 2. (A) The patient had a deep tattoo on the upper arm. (B) The tattoo was removed by chemical extraction technique; the letters remaining were kept at the request of the patient.

Similar to laser techniques, the success of tattoo removal (all techniques) very much depends upon the original tattoo condition including depth of tattoo pigment in the skin, uniformity of pigment depth (amateur or professional), location and skin type, as well as the removal skill.² Compared with laser techniques, Rejuvi Tattoo Removal may need more skill or experience, particularly for the removal of body tattoos. The primary requirement is that a technician must have good experience in tattooing or micropigmentation. For the removal of facial cosmetic tattoos, most permanent make-up artists can perform a good and safe treatment because the tattoo pigments are at a shallow depth in the skin (epidermis or upper dermis). For removal of body tattoos (usually quite deep, mid-dermis or below), training and procedures become very important in minimizing adverse effects such as hypertrophy and pigmentary change. It is found that adverse effects consistently occur with a technician who does not have proper training or skill level.

In the last 5 years of practice a conservative application procedure has been developed for body tattoo removal, and the rate of adverse events is below 1% (after good training). The key to the procedure is to avoid deep and prolonged puncturing to the skin (do not intend to remove all tattoo colours in one treatment). The detailed procedures can be provided upon request (E-mail address at the end of this correspondence).

Rejuvi Tattoo Removal has been successfully and widely used by many permanent make-up artists, tattooists, dermatologists and plastic surgeons in the U.S.A. Extensive tattooing experience and good training are the keys for such success.

Rejuvi Laboratory, Inc., South San Francisco, CA 94080, U.S.A.
E-mail: rejuvi@mindspring.com

W. CHENG

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Chemical extraction technique for tattoo removal: reply from authors

DOI: 10.1111/j.1365-2133.2004.06288.x

SIR, Very few manufacturers take the opportunity to respond to comments made about their products or devices in medical journals. Dr Cheng's response provides more insight and knowledge to the readership about a medical device/treatment that lies at the fringes of dermatology practice. We merely reported two adverse incidents with the Rejuvi™ tattoo removal method and summarized past and present tattoo removal treatments.¹

It is far too easy for a wide range of medical devices to be used by nonmedical personnel in the U.K. with disastrous consequences. Doctors without proper training and care, and practising outside the scope of their expertise, can also do much harm. We agree that Q-switched laser tattoo removal systems are not without their problems and are unhelpful for many types of tattoos. More articles published in peer-reviewed medical journals are needed to help see where chemical extraction tattoo removal systems best fit into mainstream cosmetic dermatology practice.

Department of Dermatology, Royal Devon and Exeter Hospitals, Exeter EX2 5DW, U.K.
E-mail: Anthony.Downs@rdehc-tr.swest.nhs.uk

A.M.R. DOWNS