

Commentary

Subcision with CROSS TCA peels for moderate to severe acne scars

Treating atrophic acne scars of moderate to severe variety is challenging. The challenge rises when we have to treat darker skin types. Extreme caution needs to be sought with aggressive and deeper interventions as the risk of pigmentary complications rise. To obtain satisfying visible outcome for moderate to severe acne scars the modalities often need to be combined to optimize the results.

Caustic peels like trichloroacetic acid peels (TCA) are beneficial to most types of acne scars. While treating with a full face peel for acne scars, it is important to achieve mid depth peeling. In a full face peel, depth of the peel can be controlled. Generally 15-25% strength peels are used, but this constitutes superficial peels and is helpful only in shallow and rolling boxcar type of scars and do not substantially improve deep box car and ice pick scars.

The authors of this article have highlighted focal application (CROSS) of higher strength trichloroacetic acid (TCA) on the entire depressed area of atrophic acne scars which is reported to cause improvement of scar pits sans the pigmentary adverse effects seen with full face high strength peels. Repeated DOT peel application destroys the atrophic pit with restructuring and thickening of dermal collagen.

Ice pick scars are reported to improve with very few modalities. Cross technique is useful here.^[1]

Fabbrocini *et al.* reported a study on the optimum percentage of TCA for CROSS. The objective of this study was to evaluate the efficacy of local application of 50% TCA for the treatment of atrophic acne scars as opposed to the higher 90% TCA concentration used in previous studies, in order to reduce adverse local effects. This was corroborated by histological evidence and concluded that 50% TCA for CROSS was as effective.^[2]

Focal high strength peeling addresses the mid/deep dermal component atrophic scars with substantial improvement in scar depth.

Generally a series of 3-5 sittings at fortnightly interval are sufficient for superficial box car scars and ice pick scars.

In a pilot study, by Kang *et al.* the efficacy and safety of using triple combination therapy: Dot peeling, subcision, and fractional laser method was investigated for the treatment of acne scars. Ten patients received this therapy for a year. Dot peeling and subcision were performed twice 2-3 months apart and fractional laser irradiation was performed every 3-4 weeks. Acne scarring improved in all of the patients completing this study. Acne scar severity scores decreased by a mean of 55.3%.^[3]

Subcision is used for scars which are adherent and do not flatten on skin stretching. Breaking of fibrotic bands by undermining of the scar with cutting edge of needle is a simple inexpensive way of scar remodeling. Repeated sittings are required for better cosmetic results. Repeat sessions are done after 3-weeks interval.^[4]

Alam reported that distensible and depressed scars with gentle sloping edges which are rolling scars respond well to subcision,^[5] and can be safely combined with other procedures.^[6]

No single modality of treatment may suffice to improve outcome in deeper acne scars. Combination of multiple treatment modalities in a less aggressive mode offers substantially better outcomes with less complications. Ramadan *et al.* studied subcision *versus* 100% trichloroacetic acid in the treatment of rolling acne scars in a split face trial. This study highlighted two important factors *viz*; the side with subcision showed significantly greater decrease in scar depth and size than TCA, although more pigmentation was seen with TCA (CROSS) over time decrease in scar depth was better with TCA (CROSS) method.^[7]

Use of high strength TCA does result in mild and transient post-inflammatory hyperpigmentation which can be minimized with aggressive priming and adequate post procedure care.

The above studies and the article thus validate our reason for combination modality of subcision with DOT 50-100% TCA peels for improving moderate to deep acne scars of mixed variety in Indian patients and yields optimum results at minimum cost.

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