

Microneedling has global appeal

Technique effective in all skin types.

Across the globe, microneedling has become an increasingly popular dermatologic treatment. Effective for use across all skin types and tones, it's a relatively easy treatment to integrate into a clinical practice across geographical regions.



Monica K. Li, MD, FRCPC, FAAD, clinical dermatology instructor at the University of British Columbia in Vancouver



At Friday's new session, "Advances in Microneedling Techniques Around the World," experts discussed the benefits of the technique as well as the physician skills necessary to provide patients a safe and effective way to manage various common dermatoses, including scars of various etiologies, striae distensae, androgenetic alopecia, and rhytides.

A technique for each nuance

"Microneedling technique may vary due to specific considerations when treating different skin tones and nuances in presentation of the same medical and cosmetic applications," said session director Monica K. Li, MD, FRCPC, FAAD, a clinical dermatology instructor at the University of British Columbia in Vancouver. "When delivered as a series of treatment sessions with optimal clinical endpoints, microneedling can be an effective, real-world practice option for both facial and body sites."

Dr. Li engaged the expertise of dermatologists from Brazil, Spain, and Thailand to share their perspectives on microneedling around the globe as well as its use in facilitating transdermal drug delivery. The panel also evaluated evidence-based practices comparing microneedling, radiofrequency microneedling, and microcoring. According to Dr. Li, microneedling is considered generally safe for all skin tones, delivering negligible thermal energy. However, recognizing the appropriate aesthetic and medical conditions is key to optimize outcomes. For example, she said, needle depths should be adjusted to the specific skin location and skin thickness. Consider, too, that deeper needle penetration may be necessary for thick sebaceous skin compared to thin periocular skin.

Pearls on the healing process

"Combining microneedling with the use of topical antioxidants can enhance the regenerative process in the wound healing process resulting from the treatment, specifically with topical vitamin A and C," she said. "However, products not approved for intradermal use during microneedling may cause allergic contact dermatitis or granuloma formation."

Additionally, Dr. Li said patients should be educated about the procedure and be able to commit to the necessary post-procedure care to minimize adverse effects, including the risk of infection. Depending on the skin concern, the benefits of microneedling can be leveraged as part of combination therapies to improve different characteristics seen with scars and striae such as color and texture, she said.

Tuning in to microchannels

Microneedling is also effective in facilitating transdermal drug delivery, Dr. Li said. Specifically, microneedling induces the production of microchannels by way of controlled skin injury with minimal epidermal damage. These microchannels serve as conduit for enhanced penetration of medications that otherwise may not be able to reach the dermis to exert its intended effects.

From a clinical perspective, the difference between microneedling and radiofrequency microneedling is the manually delivered approach with no additional energy to induce collagen remodeling and production, she said.

"Radiofrequency microneedling delivers radiofrequency energy simultaneously as microneedles penetrate the skin, and this is thought to be able to amplify collagen and elastin production," she said. "Because of the added energy, some feel that fewer treatments may be required for radiofrequency microneedling compared to microneedling alone for treatment of the same skin concern. However, this is not conclusive from literature to date." ●

Microneedling tips



Scars and striae typically require a series of three to five monthly microneedling treatments.



Avoid microneedling on visibly tanned skin or those with recent sun exposure to prevent potential post-procedure dyspigmentation.



Do not perform microneedling over skin that shows signs of active infection or inflammation (active acne).



Apply a cross-hatch technique when delivering microneedling passes to prevent skip areas.



Pinpoint bleeding is a useful clinical treatment endpoint.



Microneedling can be performed on discrete cosmetic units without producing lines of demarcation, unlike fully ablative laser resurfacing.



Take extra caution in the application of topical products or medications that are not approved for intradermal use during microneedling, as it may lead to possible allergic contact dermatitis or granuloma formation.

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