

Acne and Scarring: Facing the Issue to Optimize Outcomes

Jerry Tan MD FRCP

Schulich School of Medicine and Dentistry, Western University Windsor Campus, Windsor, Ontario, Canada

The scourge and stigma of acne is only completely evident to those afflicted. The cruel reality for many, even when acne eventually abates, is the facial disfigurement of acne scars. And so, the stigma continues. Others perceive those with facial acne scars as insecure and shy and as being less attractive, confident, happy, healthy, and successful.¹ It is unsurprising then that acne scarring is associated with embarrassment, self-consciousness, anxiety, and depression. This issue aims to address this aspect of acne management to optimize outcomes.

Acne scarring can affect patients across the spectrum of acne severity. Of multiple potential risk factors, the most important is acne severity followed by time to effective treatment, manipulation of lesions, and a family history of acne scarring.² These factors reflect the intensity and duration of inflammation as well as an intrinsic tendency to scar.

There are 3 conceptual dimensions relevant to interventions in reducing atrophic acne scarring. First, timely and effective therapy of active acne. This requires management to reduce the folliculocentric inflammation so characteristic of acne that leads to atrophic scars. This is the subject of multiple evidence-based acne guidelines currently available throughout the dermatological literature. Secondly, increasing the proportion of newly formed scars that resolve or normalize. Recent studies have found that newly formed atrophic acne scars may not be permanent. In a six-month observational study of patients with moderate inflammatory facial acne, one third of scars forming during that time resolved spontaneously.³ Matrix repair is ongoing during scar formation leading some scars to normalize. The therapeutic challenge then is to increase the proportion of scars that resolve by enhancing matrix repair. This potential was recently evaluated in 2 recent vehicle-controlled, rater blinded, half face studies using adapalene 0.1%/benzoyl peroxide 2.5% gel and adapalene 0.3%/benzoyl peroxide 2.5 gel, respectively. While both demonstrated mitigation in atrophic acne scar formation and improvement in global acne scar grades over 6 months, adapalene 0.3%/benzoyl peroxide 2.5 gel also demonstrated a reduction in scar numbers from baseline and compared to vehicle.^{4,5} The likely underlying mechanism is stimulation of collagen production by the retinoid adapalene.⁶ Thirdly, the correction of persistent scars. Repair procedures have progressively advanced beyond peels and dermabrasion with the advent fractionated ablative and non-ablative lasers, micro-needling with or without radiofrequency, trichloroacetic acid cross technique, subcision, and fillers. Nevertheless, such procedures are often costly, discomforting, and incompletely effective. Furthermore, there is little high-quality evidence to help direct patients and providers to best corrective options.⁷ More evidence-based research is an unmet need in this context.

In summary, timely and effective therapy for active acne, use of interventions that address acne and enhance matrix repair, and selection of appropriate scar repair procedures, can reduce impact and optimize patient outcomes.

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