

Repurposing follicular unit extraction punches for excision of ice pick acne scars

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Ice pick acne scars are a common and challenging subset of atrophic scars that are often recalcitrant to treatment. Chemical reconstruction methods, such as trichloroacetic acid or phenol application, can improve their appearance but require multiple sessions and often yield incomplete results.¹ Other options include fractional ablative techniques such as pinpoint CO₂ laser irradiation or erbium-doped yttrium-aluminium-garnet resurfacing, which may assist in improving scar texture but are generally adjunctive.^{2,3}

Surgical approaches, such as simple excision or punch excision, also remain viable approaches for deep, narrow scars.⁴ The traditional punch biopsy technique is widely used but has two key limitations, i.e. (i) limited diameter options, making precise scar matching difficult, and (ii) blunting of the punch instrument after multiple excisions, reducing efficiency when treating multiple scars.

A novel approach, using follicular unit extraction (FUE) punches, can offer several advantages over standard punch biopsies. These punches have a smaller, precise diameter (0.5–1.5 mm in 0.1 mm increments), which allows an exact match to individual scar sizes (Figure 1). They also retain superior sharpness, enabling multiple excisions without instrument degradation.

The procedure is as follows: (i) mapping and scar selection (ice pick scars are marked and mapped to determine the appropriate FUE punch size); (ii) tumescent anaesthesia (a solution of lidocaine with adrenaline is injected beneath the treatment area using a blunt-tip cannula, ensuring adequate analgesia and haemostasis); (iii) punch excision (after 10 min, the preselected FUE punches are used for precise excision); and (iv) healing by secondary intention (for scars ≤ 1.5 mm in diameter, healing occurs without iatrogenic scarring, reducing the risk of additional textural irregularities).

This technique provides greater precision, improved efficiency and enhanced healing outcomes for patients with

multiple ice pick scars, offering a surgical alternative to conventional excision methods. To date, 34 procedures have been performed using this method. No cases of post-procedural depression worsening or hypertrophic scarring were observed; however, we acknowledge that this is a limited case series. Patients with a history of keloid formation were excluded during the selection process. Figure 2 demonstrates the aesthetic result following secondary intention healing.

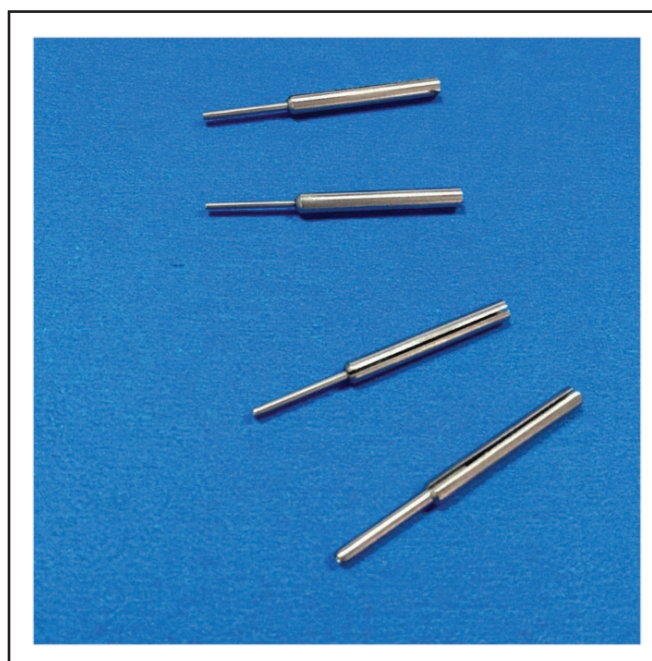


Figure 1 Follicular unit extraction punches in 0.5–1.5 mm.

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Figure 2 Representative case. (a) Pretreatment photograph of isolated ice pick scars. (b) Intraoperative mapping and follicular unit extraction punch excision. (c) Photograph 6 weeks post-treatment, showing resolution with secondary intention healing and no additional scarring.

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Conflicts of interest

The authors declare no conflicts of interest.

Data availability

No datasets were generated or analysed for this study.

Ethics statement

Not applicable.

Patient consent

Written patient consent for publication was obtained.

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CPD questions

Learning objective

To become more familiar with the dermatological topic discussed in this article.

Question 1

Which of the following is an advantage of using follicular unit extraction punches over standard punch biopsy tools in ice pick scar excision?

- (a) Better compatibility with suturing.
- (b) Designed to bevel edges for primary closure, reducing secondary healing time.
- (c) Higher precision and finer diameter increments.
- (d) Larger punch size for deeper scars.
- (e) Requires no local anaesthesia.

Question 2

What is the typical healing approach after excising ice pick scars using follicular unit extraction punches?

- (a) Application of trichloroacetic acid.
- (b) Autologous dermal filler placement into the defect.
- (c) Healing by secondary intention.
- (d) Immediate suturing.
- (e) Use of skin graft.

Instructions for answering questions

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