Comparison of punch excision combined with intralesional triamcinolone acetonide and 5-fluorouracil injection versus intralesional triamcinolone acetonide and 5-fluorouracil injection alone for the treatment of keloids: A single-blinded randomized clinical trial

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Running Title

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BACKGROUND

While some studies have shown the favorable efficacy of punch therapy for keloids, the effectiveness and safety of punch excision combined with intralesional triamcinolone acetonide (TAC) and 5-fluorouracil (5-FU) injection were uncertain. Here, we conducted a randomized controlled clinical trial to investigate the effectiveness and safety of punch excision combined with intralesional triamcinolone acetonide and 5-fluorouracil injection for keloids.

METHODS

73 participants with keloids were randomly divided into two groups. The treatment group received the treatment of punch excision combined with intralesional triamcinolone acetonide and 5-fluorouracil injection, while the control group only received intralesional triamcinolone acetonide and 5-fluorouracil injection. The keloid severity, the number of injection treatments, and adverse reactions were assessed at different time points.

RESULTS

60 participants were subjected to the final analysis. Participants who received punch excision combined with intralesional triamcinolone acetonide and 5-fluorouracil injection demonstrated a greater improvement of the modified Vancouver Scar Scale (mVSS), Patient and Observer Scar Assessment Scale (POSAS), and Dermatology Life Quality Index (DLQI) than those who received intralesional TAC and 5-FU injection. Likewise, the number of injection treatments and adverse events was fewer in the treatment group.

CONCLUSION

Punch excision combined with intralesional TAC and 5-FU injection is a promising therapeutic approach for keloids, achieving enhanced efficacy, minimized long-term adverse effects, and improved quality of life.

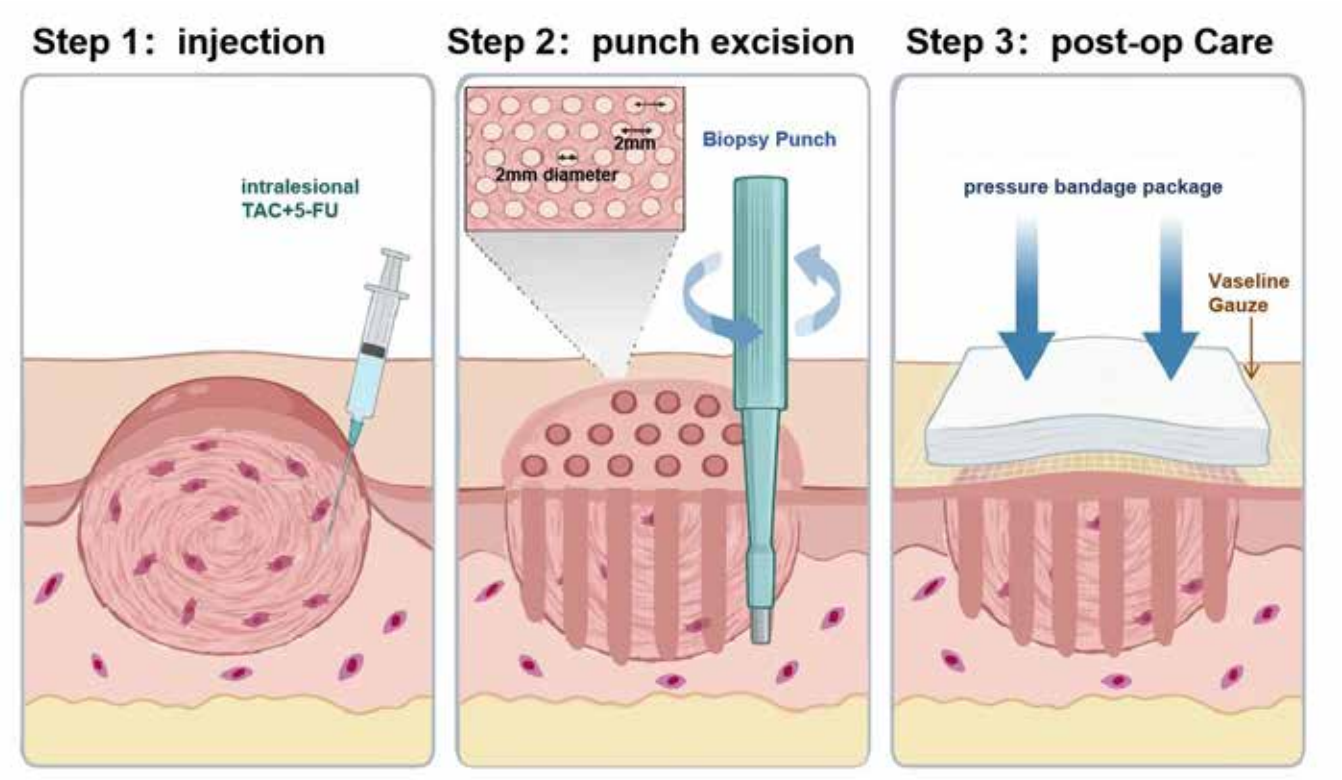

Figure 1 – Schematic of punch excision combined with intralesional TAC and 5-FU injection

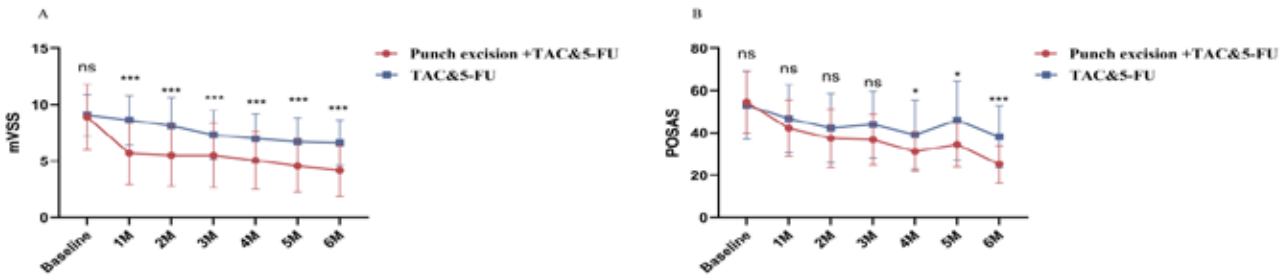

Figure 2. Comparison of mVSS (A) and POSAS (B) scores between the two groups