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# Microneedling with Dermaroller 192 needles along with 5-fluorouracil solution in the treatment of stable vitiligo



Akshy Kumar, MD, Rakesh Bharti, MD, and Shail Agarwal, MD  
*Kota and Jhalawar, Rajasthan, and Amritsar, Punjab, India*

**Key words:** dermaroller; excellent response; 5-fluorouracil; microneedling; repigmentation; vitiligo.

## SURGICAL CHALLENGE

There are many modalities for the treatment of stable vitiligo, with variable response that depends on the clinical characteristics of the site involved, extent of the lesions, presence of other autoimmune diseases and leukotrichia, and treatment modalities used. Topical 1% 5-fluorouracil in the form of cream has been used as an easily reproducible modality for the management of both stable and unstable vitiligo along with manual and electric dermabrasion, needling, and a fractional CO<sub>2</sub> laser, giving variable results in terms of repigmentation from good to excellent.<sup>1</sup> We have devised a new technique using a dermaroller for microneedling and topical sprinkling of 5-fluorouracil solution, achieving excellent response in terms of repigmentation.

## SOLUTION

The recipient area was surgically cleansed meticulously, and half an hour before the procedure, the topical anesthetic cream (lidocaine/prilocaine 2.5%/2.5%) was applied to the affected area to anesthetize it. A sterile standard dermaroller with 192 needles (diameter, 1.5 mm) was used to microneedle the area until the appearance of pinpoint bleeding. Simultaneously, 50 mg/mL of 5-fluorouracil solution was sprinkled using a 30-gauge insulin syringe on the area with pinpoint bleeding. The maximum dose of 5-fluorouracil solution used in 1 session was 10 mL. The patient was called for the next session after a gap of 15 days, with 6 sessions in total. An excellent response in the form of repigmentation of the area affected (75%-90% depending on the site) (Fig 1) was obtained, and the patient was very much satisfied with the results. No other topical or systemic treatment was given simultaneously.

Using the dermaroller and topical 5-fluorouracil solution is a comparatively fast and reproducible technique for the management of stable vitiligo without the need of extensive surgical procedures and minimal side effects, in our patient no side effects were observed. The repigmentation observed is uniform. The 5-fluorouracil solution, dermaroller, and insulin syringe are readily available everywhere, and the procedure does not require much expertise or expense, providing the patient with a clinically effective and cost-effective treatment modality.

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From the Department of Skin and VD, Medical College, Kota<sup>a</sup>; Bharti Derma Care and Research Centre, Amritsar<sup>b</sup>; and Department Of Skin and VD, Jhalawar.<sup>c</sup>

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Reprint requests: Akshy Kumar, MD (DVL), 415, New Rajeev Gandhi Nagar, Kota, Rajasthan, India, Pincod-324005. E-mail: [dermatkota@gmail.com](mailto:dermatkota@gmail.com).

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**Fig 1.** **A,** Vitiligo patch at the first session. **B,** The same patch after 2 sessions, with approximately 90% repigmentation. **C,** Vitiligo patch at the first session. **D,** The same patch at the end of 4 sessions. **E,** The same patch at the end of 6 sessions, with approximately 75% repigmentation.

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