



Innovations

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A customized hypodermic needle for superficial dermabrasion and curettage of tiny skin lesions

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PROBLEM

Dermabrasion is performed with help of dermabraders for removing the superficial (epidermal and dermoepidermal) skin lesions. However, due to their size, they are not suitable for dermabrasion of small skin lesions such as residual vitiligo patches before grafting, freckles, seborrheic keratosis, dermatosis papulosa nigra (DPN), milia, and warts. CO_2 laser is a good option for these smaller lesions, but its availability is limited. Focal dermabrasion with bevel part of a hypodermic needle is a good option, but it requires dexterity to avoid prick injury.^[1,2]

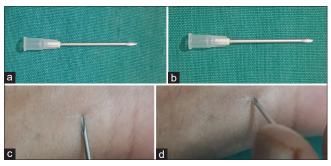


Figure 1: (a-d). The Customized hypodermic needle (18G) for dermabrasion and curettage.

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Video 1: DPN lesions are being curetted with a customized hypodermic needle.



Video 2: A broken or cut needle (21-23G) with its hub can be used for focal curettage and dermabrasion.

SOLUTION

To solve the problem of dermabrasion of tiny skin lesion, we took a readily available cost-effective and aseptic disposable hypodermic needle (16/18G). The tip of the needle is cut or broken. The lateral edge of the bevel part is used for dermabrasion and blunt tip for focal dermabrasion and curettage [Figure 1a-d and Video 1]. Firm strokes are given on stretched skin from two directions at right angle. Thus, the customized needle can be useful for dermabrading as well as curettage of tiny skin lesions if needed. However, the blunt tip of the needle should be made curved for easier curettage. In place of customized needle, a broken or cut needle (21-23G) with its hub can be used for the same purposes [Video 2].

Declaration of patient consent

Patient's consent not required as patients identity is not disclosed or compromised.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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