

Innovations

Therapeutic pearl: Miniaturization of the chemical cautery device

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PROBLEM

Chemical cautery using phenol and trichloroacetic acid is very common in dermatology. A few disposable syringe-based chemical cautery devices have been described for this use.^[1,2] These syringes, on the other hand, are not as compact, handy, or non-corrosive.

SOLUTION

A micropipette tip and a hypodermic needle cap can be used to make a small, practical, and safe chemical instrument. Cotton, a micropipette tip, needle hub, and a customized cut needle cap are needed to make a small chemical applicator [Figure 1]. The cotton is placed into the distal end of the micropipette tip and needle cap, and their proximal ends are packed with needle hub and sealed with cyanoacrylate glue [Figure 2]. The gadget is now ready for use as a chemical applicator after pouring the chemical agents with a syringe in the device [Figure 3a-d, Video 1]. The micropipette tip device is used for tiny lesions, while the needle cap is used for larger lesions



Figure 1: Micropipette tip, needle hub, needle cap (cover), cotton, and cyanoacrylate glue are required for procuring mini chemical applicator.

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Figure 2: Mini chemical applicator of micropipette tip for small and of needle cover for larger lesions.



Video 1: The device is charged with chemical for cautery.

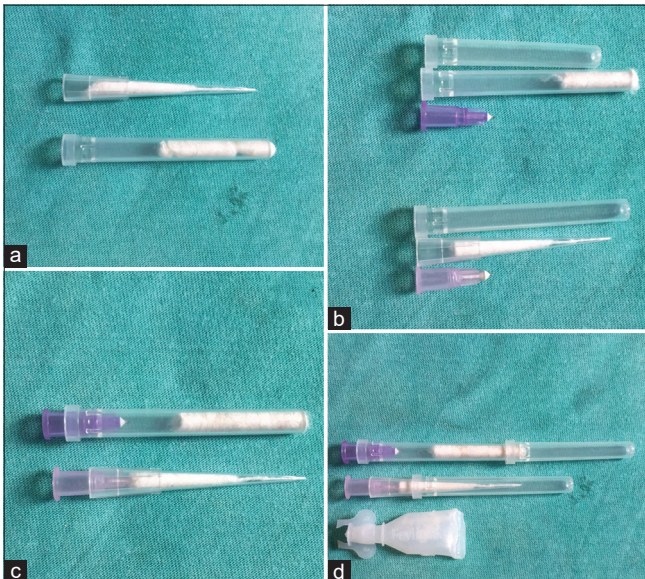


Figure 3: (a-d) Different steps of procuring a mini chemical applicator.

[Video 2]. The chemical flow is smooth and regulated due to the capillary action of cotton. To prevent chemical loss and damage, the devices are capped with needle covers after chemical cautery. After use of the device, it should be kept in horizontal or vertical position. If there is a chemical shortage in the device, it is reinjected with syringe just enough to saturate the cotton through the needle aperture of the capped needle. During refilling, there is no or minimal danger of chemical reflux. The gadget is non-corrosive and may be used for an extended period of time. Thus, tiny chemical applicator is simple and reasonably easy to procure.



Video 2: The device is used for chemical cautery.

Declaration of patient consent

Patients' 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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1. Jangra RS, Gupta S, Gupta S, Dr A. Chemical cautery pen. *J Am Acad Dermatol* 2020;82:e193-4.
2. Mukhtar M. Disposable syringe for chemical cautery. *J Am Acad Dermatol* 2022;86:e93-5.

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