

Innovations

A simplified procurement of a chemical cautery device using a disposable syringe and micropipette tip

Muhammed Mukhtar¹, Nadia Mukhtar¹

¹Department of Dermatology, Mukhtar Skin Centre, Katihar, Bihar, India.



***Corresponding author:**
Muhammed Mukhtar,
Department of Dermatology,
Mukhtar Skin Centre, Katihar,
Bihar, India.
drmmukhtar20@gmail.com

Received : 18 November 2022
Accepted : 14 December 2022
Published : 23 December 2022

DOI
[10.25259/CSDM_146_2022](https://doi.org/10.25259/CSDM_146_2022)

Videos available online at
[https://doi.org/10.25259/
CSDM_146_2022](https://doi.org/10.25259/CSDM_146_2022)

Quick Response Code:



PROBLEM

For chemical cautery procedures, the micropipette tips and syringe needle hub are generally packed with cotton twigs for capillary action for smooth and accurate chemical flow.^[1,2] However, these gadgets take time to procure their cotton twig tips. Furthermore, there is a problem with keeping the device tip in an aseptic condition. Thus, a little portion of the micropipette tip is clipped after each cautery for reuse on another patient.

SOLUTION

The two key challenges of the chemical cautery device are the procurement of micropipette tips and asepsis. To address these difficulties, we employed a 1 mL disposable syringe and a transparent plastic micropipette tip as chemical applicators. First of all, the needle shaft is removed from its hub to avoid possibility of finger injury during procurement of the device. Second, a micropipette tip (available online for 40–45 paisa/piece) is snugly fixed and sealed over the hub of the broken needle without wicking the tip with cotton twigs. Third, a small

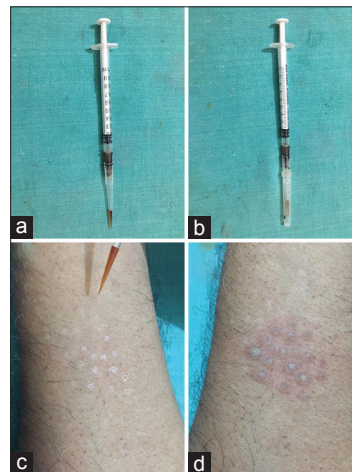


Figure 1: (a-d) The chemical device using syringe and micropipette tips and its use for chemical cautery.

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Video 1: The chemical cautery is done with light touch on normal skin.

amount of chemical (1–3 microliters, or more if necessary) is withdrawn into the micropipette tip with no air bubble in between the chemical column. The chemical in the device's tip does not fall or spill since the insulin syringe is airtight and the lumen of the tip is very thin, acting as a capillary. The skin can be cauterized by lightly contacting or touching the lesions with the tips [Figure 1a-d and Video 1]. The tip is rolled or touched over the surface of bigger lesions. Following cautery, the micropipette tip with chemical is detached with syringe and discarded. Thus, an insulin syringe with a

disposable micropipette tip is therefore a simple, aseptic, and conveniently accessible piece of equipment for quick, safe, and precise chemical cautery.

Declaration of patient consent

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

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Jangra RS, Gupta S, Gupta S, Dr A. Chemical cautery pen. *J Am Acad Dermatol* 2020;82:e193-4.
2. Mukhtar M. Surgical pearl: A small handy apparatus for chemical cautery. *J Dermatol Dermatol Surg* 2022;26:43-4.

How to cite this article: Mukhtar M, Mukhtar N. A simplified procurement of a chemical cautery device using a disposable syringe and micropipette tip. *CosmoDerma* 2022;2:129.