

# Surgical Pearl: Noncorrosive Chemical Fountain Pen for Caution

Sir,

Chemical cauterization is done with caustic agents to destroy skin lesions. To simplify this procedure, its applicators such as micropipette and syringe outlet are stuffed with a cotton wick for better flow of chemical due to capillary action.<sup>[1,2]</sup> However, this chemical has a corrosive effect on the metallic needle and on the rubber cap of the piston which causes leakage on storing the chemical for more than 1–2 month. The cauterization with an insulin syringe is little bit time consuming, cumbersome, and needs balance during the procedure.<sup>[3]</sup> A modified ball pen is described as a better alternative option for safe and precise cauterization of skin lesions.

To procure this pen, an empty polytube refill of ball pen is used as a chemical cartridge and a wicked micropipette tip as a nib. For capillary action, the cotton wick is inserted and packed in the micropipette from its proximal end [Figure 1a]. Following this, the proximal part of the micropipette is cut and fit and fixed it tightly over the refill polytube with cyanoacrylate glue. The polytube is refilled with chemical agents with help of a disposable syringe after connecting the polytube with syringe with a small rubber tube which is used in haemoglobinometer [Figure 1b]. After this, the proximal part of the tube is packed with Vaseline and a small cotton wick to control the flow and the leak of the chemical agents. This chemical refill tube is set in the ball pen body for chemical cauterization. The spot size depends on the angle of holding the pen during chemical cauterization [Figure 1c]. Its tip can be trimmed or dipped in chemical after using it on a patient. On getting cotton wick loose

in the tip, a small wick of cotton is inserted and packed with a snipped hypodermic needle from the tip end. The refill polytube and micropipette both are noncorrosive, and the chemical does not leak from the refill on storing it for the long term. About 0.5–0.7 ml chemical agent can be refilled in the polytube. Once it is refilled, it can be used on a number of patients (about 10–15) depending on the number and size of the lesions. Thus, a polytube as a chemical refill and a wicked micropipette as a nib are the good options for chemical cauterization in office. It is handy and can be carried out like a fountain pen.

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## Conflicts of interest

There are no conflicts of interest.

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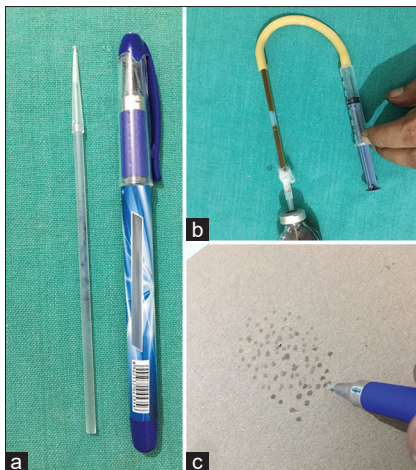
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**Figure 1:** (a) A disposable micropipette is wick with cotton for capillary action with a ball pen body. (b) The chemical agent is drawn in the polytube refill with help of a syringe. (c) The chemical pen and its variable spots size depending on the angle of holding the pen

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