Surgical pearl: Disposable cryoguard for the cryogun

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Dear Editor,

Cryotherapy is done with a cryogun for treating skin lesions. During the therapy, there is a need to maintain a distance of 1 to 2 cm of the cryoprobe from the skin surface. It requires a good balance that is difficult to maintain. This problem in cryotherapy can be solved by adding a guard to the cryoprobe for balanced and focused uniform delivery of cryogen during the freezing cycle, making the procedure more effective and safe [1]. For this, a fenestrated bottle cryoguard made from a plastic bottle is a good option for focused cryogen delivery [2]. I have advised an easy method to make different types of aseptic and small cryoguards.

For procuring aseptic, disposable, transparent cryoguards, disposable syringes (3 to 10 ml or more) are selected according to the diameter of lesions, and then its barrel is cut at a length of 1 to 2 cm from the needle hub end with a shaving blade or with a heated scalpel. After this, the cut barrel is holed (fenestrated) at 10 to 15 sites with a 16 G needle to allow the escape of extra cryogen. Following this, the needle is separated from its hub, and the distal part of the hub is cut to obtain a bigger and more patent hole. This needle hub is inserted from its cut end into the nozzle of the cryogun. This hub fits tightly in the cryoprobe. Finally, the disposable syringe cryoguard is locked in the encased needle hub of the cryoprobe (Figure 1 a-f). Thus, the aseptic transparent cryoguard is ready for safe and effective cryotherapy.

There are many advantages to using this disposable cryoguard. First, it is easy to balance the cryogun during the procedure. Second, maintaining a uniform distance of 1 to 2 cm from the skin surface is possible for uniform cryotherapy of the lesions. Third, the cryoprobe does not get contagious as it does not contact the skin lesions. Fourth, the required disposable syringes are readily available, cost-effective, aseptic, and disposable. In addition, the procedure is visualized due to the transparency of the guard. In place of the disposable syringe, a needle cap, centrifuge tube, or micropipette tip can also be modified to prepare a readily available cryoguard (Figure 2 a-f).

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Figure 1. (a-f) Different stages of procuring a disposable guard for cryogen.

2. Ashique KT, Kaliyadan F, Jayasree P. Bottle guard technique for focal and optimal delivery of cryotherapy. Dermatol Ther. 2020;33(6): e13872.

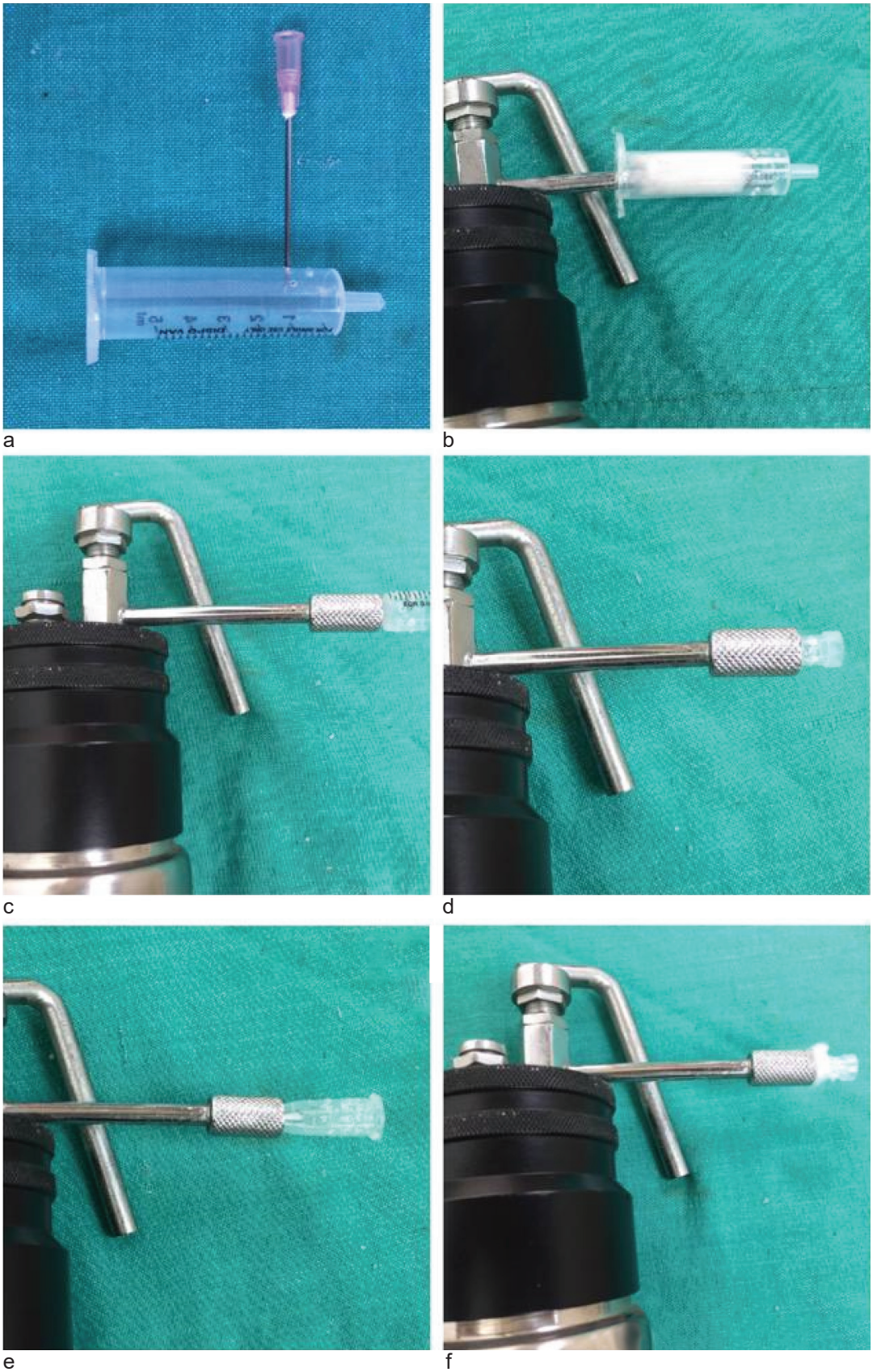

Figure 2. Disposable cryoguards made from a syringe (a), needle cap (b), centrifuge tube (c, d), or pipette (e, f).