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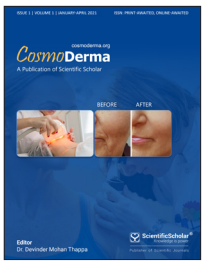

Innovations

Innovative ideas for monitoring the suction process for better outcomes

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PROBLEM

The syringe and cup suction device are an affordable method for creating suction blisters to treat stable vitiligo. This requires small, atraumatic, airtight equipment with a flat, inflexible, bony, warm surface, and a larger negative magnitude of pressure. However, following the use of a suction device, the suction process should be observed for at least the first 15–20 min to improve the outcome and save time and effort, as vesicles grow during the successful suction process.[1-3] There are no specific criteria for successfully monitoring the suction process in the literature.

SOLUTION

First and foremost, the small airtight atraumatic device is inserted in a well-stretched, least movable region at approximately 1 atmospheric pressure. Inside the suction mechanism, the skin tissue is sucked out until it creates a well-developed hemispherical shape like a blister [Figure 1a]. Following that, the device is pulled upwards to check airtightness [Figure 1b]. After properly operating the device, there is usually a stingy burning pain or sensation over the suction site for about 5 min, and the patient should be asked about it at regular intervals. After 15–20 min, sucked skin tissue becomes erythematous and tiny vesicles develop [Figure 1c and d]. If no burning pain, redness of the skin surface, or small vesicles develop during that time, reapply the device to the same location in an airtight manner.

As a result, conserving time and effort can improve blister development success rates. To improve or hasten the suction process, heat the location or apply intradermal normal saline or a local anesthetic agent to the spot.

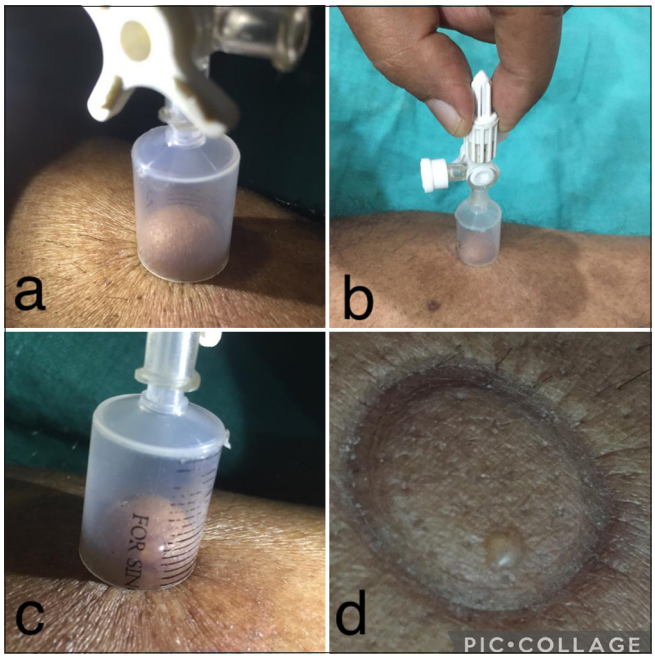

Figure 1: (a) Hemispherical skin tissue inside the device after putting properly airtight small suction cups, (b) the device is pulled up with mild-to-moderate force to assess the airtightness of the device, and (c and d) the formation of a vesicle within 10 min of suction process on the shin.

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