Use of Plastic Syringe as a Splint for Contracted Fingers

Dear Editor,

Splints are used to immobilise the body parts following injury and surgeries which help in faster healing. Here, we report the innovative use of a plastic syringe as a post-operative splint to straighten contracted middle and ring fingers. The present case is a 69-year-old female who presented to the outpatient department with a history of an ulcer over the dorsal aspect of right hand since 1 year. She gave history of a burn injury at 10 years of age. On examination, there was an ulcer of 4 cm × 3 cm size on the dorsal aspect of right hand and contracture of the middle and ring fingers at proximal and interphalangeal joint [Figure 1]. Incisional biopsy from the ulcer was reported as squamous cell carcinoma. After wide excision of the ulcer over dorsum of hand, the area was covered with split skin graft. Contractures on the ventral aspect of the fingers were released with multiple Z-plasty incision. After straightening the fingers, skin graft was also placed on the defect. We used a sterile 10 ml plastic syringe as a splint, which was cut open longitudinally and splinted on the dorsum to straighten right middle and ring fingers [Figure 2]. Sterile pad dressing was done over the splint and grafted area. This helped the fingers remain straight. It also immobilised the operated site including grafted area of ventral aspect of the fingers. We have used the easily available plastic syringes instead of aluminium or other newer splints.[1,2] The patient was discharged on the 5th postoperative day with the splint in place. The splint was removed on the 14th postoperative day which showed complete healing of the grafted site and straightening of the fingers. Final histopathology was reported as well differentiated squamous cell carcinoma with free resected margin. Further, patient was advised for physiotherapy and regular follow-up.

We report the use of plastic syringe as a splint for stabilising the fingers which is an easily available and cost effective material.

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Conflicts of interest
There are no conflicts of interest.

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Observations on CO₂ Laser Preparation of Recipient Site for Noncultured Cell Suspension Transplantation in Vitiligo

Dear Editor,

With interest, we read the review of Al‑Hadidi et al. on the role of recipient site preparation techniques in the surgical management of vitiligo. [1]

We agree with the conclusion that lasers are effective and valuable tools in the preparation of recipient sites. However, optimal laser settings and ablation depth are not known. We present two vitiligo patients where we observed that more superficial ablation of the recipient site in combination with noncultured autologous cell suspension transplantation (CST) can also be effective. We treated a 33‑year‑old woman (patient 1) and a 74‑year‑old man (patient 2), with stable nonsegmental vitiligo lesions on the legs. The cellular suspension was processed from a 1 cm × 1.5 cm to 0.2–0.3 mm thick split‑thickness biopsy using a ReCell® kit (Avita Medical, Cambridge, UK). The recipient site was prepared with a 10,600 nm CO₂ laser (Ultrapulse Encore, Active FX scanner, Lumenis, Santa Clara, CA, USA). In both patients, a first treatment site was prepared with 1 pass (200 mJ, 60 W, density 3, estimated depth of 209 microns), and a second treatment site with an additional pass (100 mJ, 60 W, density 3, estimated depth of 300 microns).

Table 1 shows erythema, reepithelialization, and repigmentation of the treatment sites. Erythema resolved faster in both patients in the least invasive setting. Reepithelialization was quicker in the least invasive setting in one patient. The different laser settings in combination with CST showed similar repigmentation, i.e., 90% and 75% repigmentation in both patients, respectively, after 6 and 15 months. Patient 1 and 2 [Figure 1 and 2] mentioned pain for 5–14 days after transplantation, without being able to assess a difference in pain between the sites.

On the one hand, laser settings to prepare recipient sites have to be of sufficient depth to make graft take possible. This is hypothesized to be at the papillary dermis and differs per body part. [3] On the other hand, these laser settings should be as less invasive as possible to allow rapid wound healing and prevent side effects. In CO₂ laser resurfacing, the safety endpoint is the appearance of a "chamois" yellow skin color, which is seen at the reticular dermis. [4] The occurrence of pinpoint bleeding, seen at the dermoepidermal junction, has been advocated as immediate clinical endpoint in CST when using dermabrasion. [2,5] This endpoint is affected by many factors and may therefore not be a reliable and reproducible clinical sign to predict the appropriate depth of ablation when using a laser.

Table 1: The degree of erythema, duration of erythema, and the reepithelialization grade in both patients and both treatment sites

|         | Patient 1 | Patient 2 |
|---------|-----------|-----------|
| Site I  | Site II   | Site I    | Site II   |
| Erythema after 2 weeks | +       | ++       | ++        | +++      |
| Erythema after 6 months | −       | −        | +         | ++       |
| Erythema lasting (in months) | 2      | 4        | 6         | >10      |
| Reepithelialization after 1 week in % | 90     | 75       | 50        | 0        |
| Reepithelialization after 2 weeks in % | 100    | 100      | 100       | 90       |
| Repigmentation after 6 months (% | 90     | 90       | 40        | 40       |
| Repigmentation after 15 months (% | 90     | 90       | 75        | 75       |

Erythema was scored by the treating physician as –: No erythema, +: Some erythema, ++: Erythema, +++: Strong erythema. Duration of erythema was indicated by the patient at the follow‑up moment, there was no erythema. Reepithelialization was assessed by the treating physician in %. Repigmentation was assessed by the treating physician.

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