

Using a microdermabrasion machine as a suction blister device

Sir,

Epidermal grafts obtained from suction blisters have been proven alternatives in stable vitiligo. There are different techniques described for creating suction blisters. All these techniques basically involve attaching suction cups or syringes to a vacuum-producing device, which in turn, can be connected to a pressure gauge for assessing the suction pressure.^[1,2] We describe a method by which the suction blister can be created using a microdermabrasion machine with a vacuum option.

We used a microdermabrasion machine having a vacuum pump (Derma peel Gold[®] manufactured by DermaIndia). The other materials used included 20 cc or 50 cc syringes and three-way connectors. The microdermabrasion hand piece is removed from its attachment [Figure 1] and the powder delivering tube (white for this machine) is occluded. The vacuum tube (blue for this machine) is attached to one end of a three-way connector and a 20 cc syringe is attached to the lower end of the three-way connector [Figure 2]. The syringe is placed firmly onto the donor site after removing the piston and the microdermabrasion machine is switched on. The vacuum level can be adjusted to the desired level. We normally maintain a vacuum of 200–400 mm of mercury. The knob of the three-way tap is rotated to



Figure 1: Detaching the microdermabrasion hand piece



Figure 2: Occluding the non vacuum end and attaching 20 ml syringe to vacuum end

lock the suction and the blue tubing is gently removed so that the syringe stands independently due to the suction. Good blisters are obtained in an average period of two to three hours [Figure 3].

We have used this method for the creation of blisters in six patients. The lateral aspect of the thigh was used in all patients and the forearm area was also used in one patient. The rates of adequate blister formation were around 75% (out of a total of 40 sites in all six patients, adequate blisters were obtained in at least 30 sites).

Most modern dermatology centers have microdermabrasion units and the same can be effectively utilized to harvest suction blisters for stable vitiligo or postinflammatory depigmentation. The use of the microdermabrasion machine for the creation of suction blister is unlikely to affect the life of the machine in any way, because the total time per site for creating adequate suction is very minimal. (The machine needs to be switched on only for around thirty seconds per site, after which the suction can be locked). We could not think of any drawbacks of this method compared



Figure 3: Blisters raised using the current method

to other available techniques of creating suction blisters. The machine gives a smooth suction and the vacuum can be easily adjusted in any range between 0 and 760 mm of Hg even after fixing the suction cup/syringe. The tubing of the machine fits snugly into the corresponding ends of the three-way tap, and creating and measuring the vacuum levels is very convenient.

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