

A Novel Skin Graft Meshing Technique Using Autoclaved Foam

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Skin grafting is widely used for healthy raw areas. The advantages of meshing include prevention of seroma or hematoma underneath the graft and to cover a larger surface

of wound area. The techniques for meshing are many, including^{1–3} machine meshers introduced by Tanner et al in 1964. Usually, manual hand meshing techniques are sufficient using sharp blades and a hard surface underneath the graft.^{1–3} We described a novel and efficient hand-based skin graft meshing technique using autoclaved foam.

Our technique requires a piece of autoclaved foam (polyurethane foam) and a 11 size blade with handle (►Fig. 1). Skin graft is spread over the foam with dermis facing the roof (►Fig. 2). The graft is meshed by making multiple perforations with the 11 size blade at an almost perpendicular to the



Fig. 1 Materials for our technique of hand meshing.

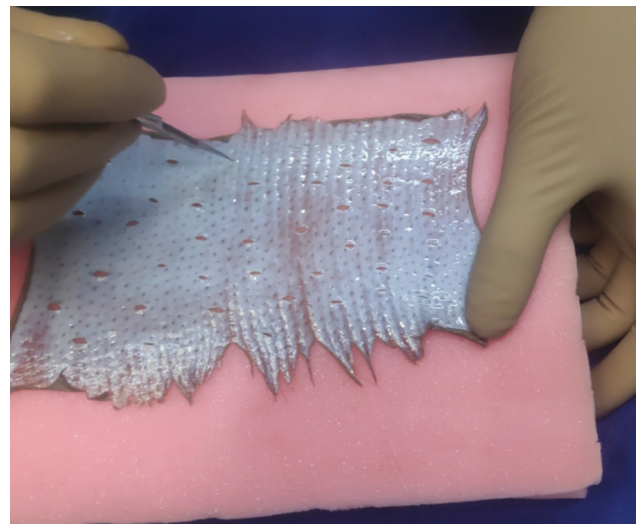


Fig. 2 Skin graft is spread over the foam with dermis facing the roof and meshing with an 11 size blade perpendicular to the graft.

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skin graft (►**Fig. 2**) (►**Video 1**, available in the online version only) (►**Video 2**, available in the online version only). The perforations are made according to the recipient area. Once the graft is secured and the graft is layered by paraffin gauze and same foam can be used as pressure dressing or vac dressing.

Video 1

Routine method of hard surface underneath the graft and our foam technique. Online content including video sequences viewable at: <https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0042-1759691>.

Video 2

Only our foam technique. Online content including video sequences viewable at: <https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0042-1759691>.

There are many ways of meshing a skin graft that have been described in the literature¹⁻³. Each technique has its own disadvantages such as damage to the graft, non-availability of materials, and donor site morbidity. Meshing against wooden board or kidney tray is widely used. However, it is time consuming, perforations are not good enough, and slippages of

graft are major disadvantages. The advantages of machine meshers include meshing larger grafts and uniform fenestrations. Limitations of using the meshers include availability of meshers, cost, time-consuming, sometimes an assistant's help is required, and mechanical failure leads to damage of the skin graft. With all these limitations of above-mentioned procedures, we have introduced our hand meshing technique with readily available materials. In our center for all the cases that required skin resurfacing, especially medium-to-large sized split thickness skin grafts, we used this technique and found to have excellent outcomes. The advantages of our procedure is reduced cost, access to materials, ease of performing, less time consuming, effortless meshing, and the option of using the foam material for VAC dressing.

This novel technique of split thickness skin graft meshing by hand, using an 11 size SS blade over an autoclaved foam slab is a simple, fast, and effortless method of hand meshing compared with other traditional techniques. Hence, we recommend this technique to mesh large areas of grafts in a shorter time.

Conflict of Interest

None declared.

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