Ideas and Innovations

Protectors for skin grafts

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SUMMARY. Two devices for the protection of exposed grafts are described, the first primarily for heels and the second designed to adapt to any convex surface.

The most common cause of early graft failure is the loss of graft recipient contact from haematoma, seroma or shearing forces. Later causes include infection and recipient bed necrosis. All of the above states can be detected more easily with an exposed graft and the appropriate action taken. An exposed

Fig. 1
Figure 1—Frame constructed from 12 mm stainless steel tubing.

Fig. 2
Figure 2—Frame in use covered with elasticated tubular bandage.

Fig. 3
Figure 3—Materials used in the construction of the DIY graft protector.

Fig. 4
Figure 4—Device in position allowing easy graft access.
graft needs protection from external trauma, but any device designed for this purpose should also be light, comfortable and allow easy graft access.

Two such devices have been developed, the first primarily for heels and the second a versatile protector which can adapt to any convex surface.

A frame to expose heel grafts

This frame was designed to expose grafted heels, in an attempt to overcome problems previously encountered when grafting this area. The main considerations in construction were to prevent heel bed contact whilst safely supporting the calf, preventing equinous and allowing easy graft access.

Stability was another important aspect, the broad base perpendicular to the limb designed to fit between air cells if present. The frame was constructed from 12 mm tubular stainless steel (Fig. 1). Prior to use elasticated tubular bandage is stretched over the frame to support the limb. The weight and shape of the limb dictate the bandage size. Figure 2 shows the frame in use.

The DIY graft protector

An easy to make and versatile graft protector has been developed. Adaptation of shape was the main priority of its design.

Plastic was the material of choice, being light, flexible and easily cleaned for reuse. The lid of an airtight food container was found to be ideal. The protector is simply constructed by cutting 1.5 to 2 cm strips in the chosen size of plastic, leaving intact borders of greater than 3 cm at either end. Finally the origin of strips is gently scored at both borders to increase the convexity (Fig. 3).

To use, the device can be taped directly to the body or incorporated into a plaster (Fig. 4).

References


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