

Group A burns superficial dermal partial-thickness burns

Group A burns: superficial dermal partial-thickness burns

There are two key concepts for managing partial-thickness burns: prevent any factor that may result in the burn 'changing group', predominantly infection; control pain, particularly during dressing changes and therapy. An array of treatment options are used worldwide for the treatment of these wounds, ranging from honey and simple dressings to synthetic biological dressings with porcine collagen or live cultured keratinocytes. The ideal dressing should be easy to apply, non-painful, pain-reducing, simple to manage and locally available. The crucial factor is to prevent the borderline mid-dermal burns from progressing to deep dermal. Here, the choice of dressing can make the difference between scar and no scar and/or operation and no operation. If the wound is heavily contaminated as a result of the accident, then it is prudent to clean the wound formally under a general anaesthetic. With more chronic contamination, silver sulphadiazine cream dressing for 2 or 3 days is very effective and can be changed to a dressing that is more efficient at promoting healing after this period. The simplest method of treating a superficial burn wound is by exposure, but this is usually only suitable for small burns on the face as this method is painful and requires an intensive amount of nursing support. A variation on this theme is to cover the wound with a permeable wound dressing, such as Mefix or Fixomull. This allows the wounds to dry but, because it is a covering, it avoids the problems of the wound adhering to sheets and clothes. A similar method of managing these types of burn is to place a Vaseline-impregnated gauze (with or without an antiseptic, such as chlorhexidine) over the wound. An alternative is a fenestrated silicone sheet (e.g. Mepitel). To provide antibacterial cover Acticoat dressings with silver nanocrystals are also used. They can be left in place for up to 7 days. More interactive dressings include hydrocolloids and biological dressings. Hydrocolloid dressings need to be changed every 3–5 days. They are particularly useful in mixed-depth burns as the high protease levels under the occlusive dressing aids debridement of the deeper areas of burn. They also provide a moist environment, which is good for epithelialisation. Duoderm is a hydrocolloid dressing. There is good evidence for its role in burns. Biosynthetic (e.g. Biobrane) and natural (e.g. amniotic membranes) dressings also provide good healing environments and do not need to be changed. They are ideal for one-stop management of superficial burns, being easy to apply and comfortable (Figure 46.6). However, they will become detached if applied to deep dermal wounds as the eschar needs to separate. They are therefore not as useful in mixed-depth wounds. - - - - -

(b) (c) Figure 46.6 Treatment of partial-thickness burns with Biobrane. (a) Prior to surgical scrubbing and shaving. (b) Following surgical debridement and application of Biobrane; note that the Biobrane is adherent to the wound. (c) As the burn wound re-epithelialises the Biobrane lifts and can be trimmed at each dressing change. Normally the Biobrane is fully removed by 3 weeks.

Treatment goals for group A burns /uni25CF /uni25CF /uni25CF /uni25CF

Prevent burn becoming infected Use of appropriate dressings Manage pain Prevent progression to deeper burn (group B burns)

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