Practical issues in the management of superficial pre-tibial skin tears in the older person

Ageing produces many changes not least of all the flattening of rete pegs which anchor the unvascularised epidermis to the dermis (Hooper & Goldman 1999). This is the effect of programmed ageing, a true biological process which also leads to skin thinning on areas such as the dorsum of the hand and hand (Fig 1 & 2). When combined with added ageing, which is the damage caused by exposure of skin to the environment or the effects of drugs such as corticosteroids, there is an increased predisposition to skin trauma (Mason 1997).

**CASE STUDY**

Mrs R is a 78 year old lady with a long history of chronic obstructive pulmonary disease (COPD). She has been taking oral prednisolone 10 milligrams daily for the past six years. Her cardiac failure is reasonably well controlled with diuretics and ace inhibitors. However, she experiences leg oedema with subsequent stretching of her already thin skin.

Osteoarthritis limits her mobility but she still manages with the help of carers to live independently. While stretching to reach a book on a high shelf Mrs R loses her balance and knocks the lateral aspect of her right leg on the corner of the television and video cabinet sustaining two lacations. Mrs R's neighbour took her to the local A&E department.

**PRACTICE POINT**

Mrs R's neighbour was right to seek medical help early as a flap will remain viable for up to 6 hours post-injury.

**INITIAL MANAGEMENT**

Mrs R's wound was irrigated with normal saline. The flap was gently unfurled and held in place with a paraffin tulle dressing. The smaller deeper wound was packed with paraffin tulle. A secondary dressing of saline soaks was applied and the leg was wrapped in orthopaedic wool with a cotton crepe bandage applied in spiral fashion from toe to knee.

**FOLLOW-UP**

The instruction to Mrs R's district nurse was that the dressing should be left in place for 10 days. Dressing removal proved difficult as the saline soak had dried and hardened with exudate and the paraffin tulle dressing was embedded in the wound. Soaking of the dressing aided pain free removal of the gauze but since paraffin is hydrophobic no amount of soaking helped remove the tulle dressing. Mrs R subsequently experienced considerable pain. The flap was not viable (Fig 3) and although there was a purulent discharge and oedema there was no inflammation.

**PRACTICE POINT**

Corticosteroids and ageing reduce the immune response, therefore the classical signs of infection such as redness may not be present.

**COMMENT**

The doctor in A&E was correct in gently unfurling the skin flap in the hope that it would take in the same manner as a skin graft but the choice of dressing and length of time to dressing change was unfortunate. Tulle dressings have a wide weave and where the defect is not completely covered by the flap the new capillary loops of granulation tissue can become ensnared in the weave causing trauma and pain on removal (Thomas 1997). These dressings are also designed to be changed daily and will dry out if left too long. Picking the smaller deeper wound would not have ailed healing and again led to pain and trauma on removal.

**ALTERNATIVE DRESSINGS**

A more modern alternative dressing would be a silicone coated dressing such as Mepitel (Mohnycke) which clings to the flap and surrounding skin without adhering (Pudre 2000). An alginate, hydrofibre or foam dressing would help absorb exudate which may be copious in the first 3 days due to the inflammatory phase of wound healing. Steristrips are a popular option for securing the flap. However, they must be placed at intervals to allow drainage as a collection of blood and exudate