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DRESSING WOUNDS WITH POTATO PEEL

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The use of boiled potato peel (PP) in dressing of various skin conditions was studied. A total of 11 patients were selected, which included resistant wounds of pemphigus, bullous pemphigoid and leg ulcers. An autoclaved PP dressing with a thin layer of antiseptic cream was applied at 25 sites. It was covered with multilayered gauze and the dressing was secured firmly with either a roller bandage or with an adhesive tape. Complete epithelization was seen at 20 sites (80%), near complete epithelization at one site. There was no satisfactory response at three sites and at one site the result could not be evaluated. The mean duration of healing was one week for superficial wounds and three weeks for deep wounds. The PP dressing facilitates the wound and three weeks for deep wounds. The PP dressing facilitates the wound healing process by providing and maintaining a moist environment. The PP dressing is easy to prepare, apply as well as remove. It is a comfortable dressing and is also cost effective.

Key Words : Potato peel, Wound dressing

Introduction

The use of boiled potato peel dressing in the management of burns has been used successfully.[1-3] The present study has used the peel to treat a number of dermatological conditions with erosive wounds.

Materials and Methods

A total of 11 patients were selected for Potato Peel (PP) dressing. The ages varied from 20 to 71 years. The various conditions were cases of pemphigus vulgaris, bullous pemphigoid, leg ulcers and toxic epidermal necrolysis (TEN).

The method of prepartion of the dressing is relatively simple. Large sized potatoes are boiled and the skin is peeled off. The potato remnants on the peel are cleaned by soaking the peel in water. The peel is then dried and a starch paste is applied on the outer side of the peel. It is then pasted on to a single layer of gauze in close approximation. Care is taken to prevent curling of the edges. These are later packed in a paper envelope and autoclaved.

The site where PP is to be applied is properly cleaned. A thin layer of antiseptic cream is applied on the inner surface of PP. An antiseptic cream is generally preferred, however a moderately potent steroid cream can be used in addition in immunobullous conditions like pemphigus vulgaris and bullous pemphigoid.

It is the inner layer of PP, with the antiseptic cream, which is then applied at the wound site. It is covered with layers of gauze to absorb any discharge. The dressing is finally held in place by a roller bandage or a sticking tape.

The dressing is changed everyday in the presence of excessive oozing or on the third or seventh day in case of minimal oozing, till the lesion heals.

The subsequent cleaning of the site should be done with great care. The part is cleaned with a gentle flow of normal saline with strict care to avoid rubbing or dabbing of the site, in order not to disturb the growing epithelium.

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The criteria for selecting the sites for PP dressing in the study included raw areas of pemphigus vulgaris and bullous pemphigoid which were resistant to treatment with systemic steroids, extensive loss of skin as in toxic epidermal necrolysis and recurrent and chronic leg ulcers of varicose veins, and also those of traumatic and infective aetiologies. The removal of slough was done prior to the application of PP dressing in leg ulcers.

Results

A total of 11 patients were selected. Six were male and 5 were female. There were 5 cases of pemphigus vulgaris, 4 of leg ulcers, one of bullous pemphigoid and one of toxic epidermal necrolysis. The total number of sites selected were 25. The distribution of the various sites were as follows, flat areas (11), flexural (4),over joints (4), bony areas (4), pressure sites (2). Complete epithelization was seen at 20 sites (80%), near complete epithelization at one site (4%). However, 3 sites (12%) did not show satisfactory epithelization. Two of which were cases of pemphigus vulgaris, one of which had a persisting lesion on the chest with diabetes and the other had a lesion over the clavicle. The third site was the buttock in a case of bullous pemphigoid, where the lesion persisted probably being a pressure site. One patient of TEN could not be fully evaluated due to the patient's sudden demise.

The duration of healing varied between 4-10 days for superficial wounds and 14-28 days for deep wounds like in the case of long standing leg ulcers.

In two patients of pemphigus vulgaris, the PP dressing was compared with conventional dressing of gauze with antiseptic cream. Symmetrical sites were selected for comparison, they were axillae in one patient and popliteal fossae in other. The sites of PP dressing healed within 7 days, however even after 2 weeks at the site of conventional dressing the lesions persisted. Finally the conventional dressing was changed to PP dressing and the lesions healed within a week.

Discussion

The advantage of use of PP dressing is two fold. First it acts as a barrier and protects the wound against exogenous agents and secondly the cork layer of the potato peel prevents dehydration,[4] thus it provides a moist environment which is the single most important factor for wound healing.

In the present study, it was found that PP dressing can be used with good results in skin conditions which result in large areas of skin loss as in immunobullous diseases and chronic leg ulcers. The dressing is especially helpful in cases of pemphigus vulgaris, bullous pemphigoid, where the wounds are comparitively clean and often occur over large areas and pressure sites. These are areas which are prone to trauma or friction from clothes and due to pressure on mattress. With PP dressing, the surface can be protected for as long as 7 days. PP dressing allows exchange of water vapour and gases, making it comfortable to use.

The PP dressings are cost effective, relatively easy to prepare, apply, as well as remove. It is a cooling dressing since it prevents the dessiccation of wound, keeps the wound surface moist which is condusive to healing, and, most important, they do not disturb the healing epithelium unlike gauze, when the dressing is removed. None of the 11 patients that we treated showed any deterioration or secondary infection. They were especially useful in cases of pemphigus vulgaris with wounds in the scapular and clavicular regions, as these take a long time to heal.

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