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A national survey of the nursing practice in the treatment of hyperkeratosis associated with venous hypertension.

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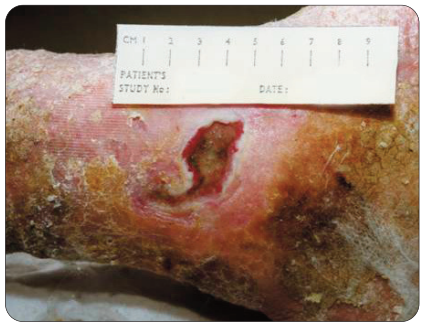
Background

A recent survey of one health district in England identified that, of 482 people with leg ulcers, 40.4% of patients had venous leg ulcers (Vowden & Vowden 2009). Part of the nursing management for these patients is care of the whole lower limb. In the presence of venous hypertension there may be varicose eczema, dry skin and hyperkeratosis. Hyperkeratosis is the presence of dry scales found on the surrounding skin of patients with venous leg ulcers (shown opposite). This is caused by over proliferation of the keratin layer (Lymphoedema Framework 2006). Currently in the UK there is no national guidance on how to care for hyperkeratotic skin, apart from a generalised reference to the use of bland emollients for dry skin (Lymphoedema Framework 2006, World Union of Wound Healing Societies 2008, Scottish Intercollegiate Guidelines Network 2010). Therefore it was decided to try and establish the current practice in Wales for caring for hyperkeratotic skin on the lower limbs.



An example of hyperkeratosis

Aim

The aim was to complete a survey of the All Wales Tissue Viability Nurses Forum to establish the standard nursing practice for the treatment of hyperkeratosis associated with venous hypertension.

Methods

The All Wales Tissue Viability Nurses Forum consists of over 30 nurses whose main focus is to care for the prevention and management of people with wounds in Wales. Therefore a survey of Tissue Viability Nurses (TVNs) was undertaken to establish the size of the patient population with hyperkeratosis, how this was cared for (which included how often the hyperkeratosis was removed), the method used to descale the legs, the amount of time taken to complete the process and any problems encountered with the chosen method.

Results

The survey produced a response of 13 completed questionnaires (30%) (Table 1). The number of patients with venous hypertension and hyperkeratosis on the TVNs caseload ranged from 20 - 75%. The hyperkeratosis was most commonly removed at each visit. The most frequently reported treatment was soaking the leg in a bucket of water containing an emollient. This was followed by a variety of treatments including paste bandages, diprosalic preparations, hydrocolloid dressings, wet wrapping and wiping with gauze. The time taken to complete the procedure ranged from 10 - 30 minutes. The disadvantages of the methods were listed as messy, time consuming, the potential for cross infection and trauma. There were no reported advantages listed for any of the methods used.

Table 1 – Questionnaire responses

Question	Responses
Generally, for patients with venous leg ulcers, how much of a problem is hyperkeratosis/scaling of the lower limb?	75% of caseload - 2 responses 50% of caseload - 2 responses 30% of caseload 20% of caseload moderate problem blank depends… most patients significant problem big problem variable
How often do you have to descale the limb?	Weekly - 2 responses Each visit - 7 responses Not stated - 4 responses
How do you do this and can you describe the procedure and solution used?	Wash leg and apply emollient - 6 responses Wash leg, descale and apply emollient - 6 responses Apply emollients Wiping with gauze Urea based cream - 3 responses Diprosalic preparation Paste bandage Wet wrap Hydrocolloid
Approximately how long does it take?	30 minutes - 3 responses 20 minutes - 2 responses 10 minutes - 2 responses 10 – 15 minutes Depends on time available - 5 responses
What are the advantages and disadvantages of this method?	Messy, Time consuming - 11 responses Risk of cross infection - 2 responses Risk of trauma

Discussion

The TVNs were aware of the need to remove hyperkeratosis as part of the care of the lower limb of patients with venous hypertension. However, there was a lack of uniformity in practice. For many TVNs the removal of the hyperkeratosis was time consuming and required repeating at each visit.

Conclusion

There is no standard practice for dealing with hyperkeratosis and the current methods are not ideal. There is the potential to develop a more patient and nurse friendly method of descaling the legs, which reduces the time required for the procedure, together with effective removal of the hyperkeratosis.

References

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