

A Clinical Evaluation of a Dressing Containing Hydrokinetic Fibres in Ten Venous Leg Ulcer Patients attending a Complex Wound Clinic

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Venous leg ulcers typically produce large volumes of exudate and thus place wounds at risk of maceration and consequential wound breakdown and delayed healing. It is therefore important that dressings used to manage wound exudate are designed to avoid any increase in patient morbidity. A small-scale evaluation was designed to record patient/wound progress over a 4 week period when using a dressing containing hydrokinetic fibres.

Objective:

To record the progress of 10 patients with venous leg ulcers (VLUs) who attended an ambulatory wound clinic in London, UK and whose dressing regime was changed from the local 'standard of care' to that of a highly absorbent wound dressing containing hydrokinetic fibres (HF).

sorbion sachet EXTRA (sorbion GmbH & Co. KG, Senden, Germany).

Methods:

A convenience sample of patients with enduring VLUs was enrolled over a period of 6 weeks in Q3/4 2013. Following appropriate Doppler assessment all patients received graduated compression bandaging before and during the evaluation period. Data was recorded on a template evaluation form and analyzed using MS Excel.

Results:

10 patients (5 male, 5 female) with mean age 81.7 years and age range 72 – 90 years were recruited.

As may be expected in an elder population multiple patient comorbidities were present (Figure 1).

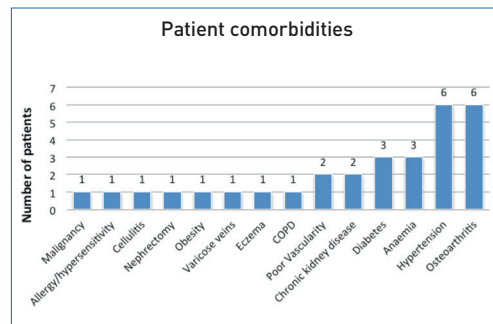


Figure 1

Similarly, the patients received a wide range of medications (Figure 2).

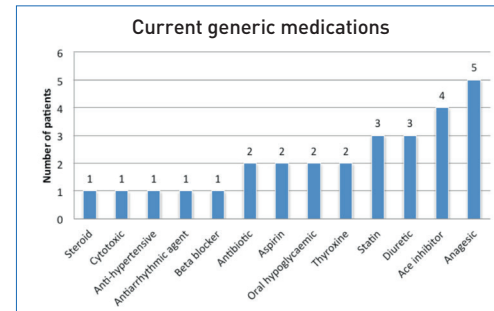


Figure 2

Patient mobility is recorded in Figure 3.

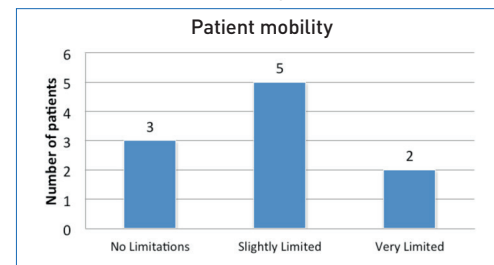


Figure 3

Seven out of ten patients had restricted mobility.

Prior to enrolment the patients received a range of dressings (Figure 4), some were applied in combination (not recorded).

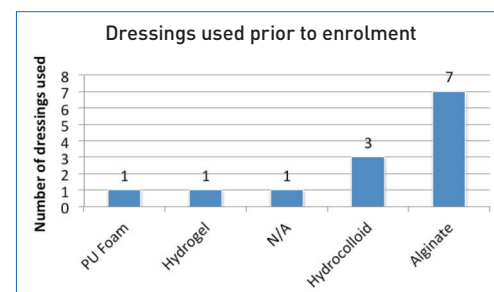


Figure 4

Duration of ulcers is recorded in Figure 5.

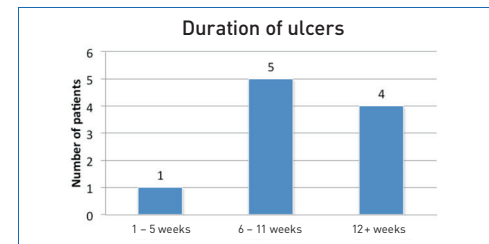


Figure 5

It is generally accepted that a wound of 6 weeks duration is classed as a chronic wound. Five leg ulcers were 6 – 11 weeks duration and 4 were more than 12 weeks duration.

In week 0 ten out of ten wounds produced moderate to heavy levels of exudate. Following the introduction of HF-dressing the estimated level of exudate decreased between week 0 and week 4 (Table 1).

Level of exudate	Low	Moderate	Heavy
Week 0	0	6	4
Week 4	3	6	0

Table 1 Estimated level of exudate

Peri-wound maceration at week 0 and week 4 is recorded in Figure 6.

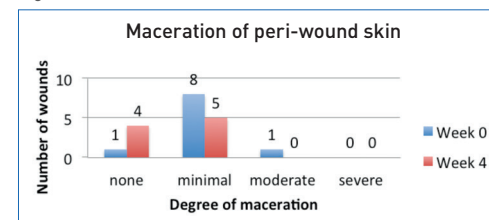


Figure 6

It can be seen that maceration markedly decreased between week 0 and week 4 thus reducing the risk of increased patient morbidity from wound breakdown/extension. Throughout the five-week evaluation period no leakage of exudate past the HF-dressing was recorded.

The recorded estimations of granulation tissue (Figure 7) and slough (Figure 8) coincide with an increase in the mean epithelial tissue between week 2 and week 4 (Figure 9). There is also a coincidental decrease in the mean wound surface area – week 0 [36.5cm²], week 2 [32.5 cm²] and week 4 [16.7 cm²], indicating an overall improvement in the wounds.

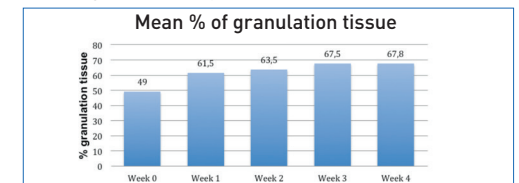


Figure 7

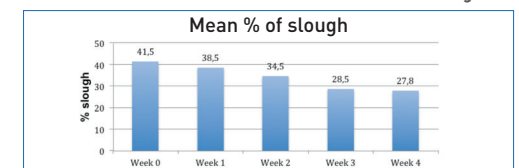


Figure 8

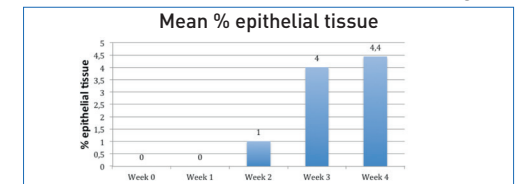


Figure 9

Patient 4 developed a wound infection in week 3 and was treated with a topical antimicrobial dressing. The patient was discontinued from the evaluation in week 4 as a result of loss in follow up.

Discussion: Efficient management of wound exudate is vital so that an environment supportive of healing is provided. The challenge faced by the clinician focuses on precision in the selection of wound dressing. The conclusion reached should be based on the desired wound/patient outcomes together with the performance capability of the product. In problematic wounds, such as those included in this evaluation, a limited evaluation period of 4 weeks is unlikely to demonstrate significance in respect of wound closure. However, a trend towards healing is clearly demonstrated as a result of the provision of an environment conducive to healing in the longer term.