

PILOT EVALUATING A BIO-CELLULOSE DRESSING AND TUBULAR COMPRESSION ON VENOUS LEG ULCER PATIENTS IN A NURSING HOME SETTING

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Aim :

In the Netherlands the CBO (Quality Control for Healthcare) standard of compression (>40 mmHg) bandaging with short stretch bandages for venous leg ulcer treatment is not always correctly applied, i.e. in nursing homes, where education or experience may be lacking.

A ready to wear 2-layer *tubular compression system was used with a **bio-cellulose polihexanide containing dressing, covered with a ***foam.

The efficacy of the system used for venous leg ulcer treatment was evaluated, looking at edema reduction, ulcer healing, patient comfort, acceptance and handling.

Patients:

Twenty patients with a mean age of 76.5 years (SD 62.5 range 68-89 years, n=15 women) with confirmed (Doppler) venous ulcers were included. Patients had mild to moderate edema and ulcers were <15 cm².

Dressing changes were on average 3 times weekly after showering. For compression a *tubular system was used. The 1st layer (a silk-like stocking) provides about 10 mmHg and is left in place during the night. The second compression layer (30 mmHg) is easily applied and removed over the smooth 1st layer and is re-applied in the morning.

Results :

After an average of 10 days the ulcers were clean and the bio-cellulose dressing was continued without polihexanide for another week, after which the foam was used as a primary dressing. Edema reduction was effective and N = 20 ulcers had healed within a 9 week treatment period.

Conclusion:

The results of this pilot indicate that the compression system combined with the bio-cellulose dressing to be effective in venous leg ulcer patients with mild edema, treated in a nursing home setting. The regime was comfortable and well accepted by patients and clinicians.

Case:

The patient, 82-years old lives in a nursing home. She injured her right leg with her walker. During 4 weeks her GP treated her wound with Tulle-gras containing fucidine, covered with an island dressing. Although she had a history of venous insufficiency, she refused compression therapy, using bandages as she was convinced her shoes would not fit. Dressing changes took place daily. As the ulcer increased in size, the dressing regime was changed as follows:

- Wound cleansing using the shower head
- The peri-wound skin was protected with a spray-on film
- **Bio-cellulose dressing + PHMB was cut to the shape of the wound and covered with a ***foam
- Her dry skin was treated with a moisturizing cream
- Two-layer *tubular compression system was used to reduce oedema

After three weeks the **bio-cellulose + PHMB dressing was discontinued and the ***foam was used as a primary dressing and changed once weekly.



Fig 1 :

Day 0: The ulcer (5 x 3 cm) contains mostly slough, the peri-wound skin is inflamed and oedema is present in her lower leg and foot,. There is moderate exudate production. The **biocellulose + PHMB dressing is cut to shape and covered with a ***foam. Dressing changes: 3x/week The compression system is washed and re-used.



Fig 2:

The white first layer is left in place at night and the 2nd layer is re-applied in the morning.



Fig 3:

At 3 weeks the ulcer size is 2.5 x 2 cm, with 85% granulation and 15% slough. A smaller size of tubular compression was now given, hence oedema reduction.

Fig 4:

At 4 weeks the ulcer is closed. The patient accepted the compression, which was continued.

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*Actico® Silk, **Suprasorb® X – PHMB, **Suprasorb® X, ***Suprasorb® P, Lohmann & Rauscher GmbH, Rengsdorf, Germany

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