

A POLYHEXANIDE CONTAINING BIO-CELLULOSE DRESSING IN THE TREATMENT OF PARTIAL-THICKNESS DERMAL BURNS – A CASE STUDY

A van den Wijngaard¹, RN, M Hesseling², CMA

¹Wound and compression specialist, Lohmann & Rauscher, The Netherlands, Alicevandenwijngaard@xs4all.nl,

²G.P. Practice Lupine, Alphen a/d Rijn, ZH, The Netherlands. maartje_hesseling@hotmail.nl.

Introduction:

A case study was conducted to look at clinical efficacy of a *monofilament debridement (DB) product and a polyhexanide (PHMB) containing **bio-cellulose dressing in a partial-thickness burn patient. Previous studies showed the **dressing to be effective in burns as well as in young children with lacerations. Especially the pain reducing properties are deemed attractive for use in painful partial-thickness burns.

Methods:

Case ascertainment was used. Parameters were:

- Debridement efficacy
- Pain reduction (VAS, 10 point-scale),
- Healing time and wound bed condition, comparing day 0 (start) versus day 14 (end)
- Ease of dressing use.

The 32 year-old male had a partial thickness scald on his left hand.

At the first visit the blister roof was removed and *debridement was performed.

The burn was covered with a **bio-cellulose + PHMB dressing, which was left in situ until it came off by itself.

Results :

Healing time was 7 days. One debridement session was sufficient to obtain a clean wound bed. At day 0, VAS: 8, reduced to VAS: 2 immediately after dressing application. There were fewer dressing changes compared to previous regimes as the dressing could be left in place up to epithelialization.

Ease of use for *DB and the **bio-cellulose dressing was rated excellent.

Conclusion :

The results indicate the *monofilament debridement product and the PHMB-containing **bio-cellulose dressing to be safe and effective in the treatment of a patient with a partial-thickness burn injury.



Fig 1:

Day 0. Patient reported pain was VAS 8,70. The blister roof is removed with a sterile scalpel. Silver sulfadiazine cream was applied, covered with an absorbent dressing and fixed with a retention bandage.



Fig 2:

Day 1, debridement is performed with the *monofilament product wetted with PHMB. The wound is covered with a bio-cellulose dressing +PHMB, fixed with a film dressing. Immediately after dressing application the patient reported pain reduction from VAS 8,70 to VAS 3,20.



Fig 3:

Day 3, epithelium is progressing. VAS 2,10



Fig 4:

Day 5, the wound is almost epithelialized. VAS 0.



Fig 5:

Day 7, complete wound healing is achieved.

References:

Piatkowski a, Drummer N, Andriessen A, et al. BURNS. 2011 Aug;37(5):800-4. Epub 2011 Feb 23.
Elzinga G, van Doorn J, Alblas JG, Andriessen A et al. J Wound Care.2011 Jun;20(6):280-4.