First Italian experience with a polihexanide-containing HydroBalanced wound dressing* in hospitalized patients with critically-colonized or infected chronic wounds

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Introduction:

Bacteria and their endotoxins can impair the wound healing. In case of a critically colonized or infected wound, the reduction of the bacterial load to a normal contamination is an important tasks of a wound dressing.

The aim of our work was to evaluate the effect of the antimicrobial version (PHWD)* of a new HydroBalanced biocellulose based wound dressing (HWD)**, which can absorb exudate and donate moisture as well as has antimicrobial effects by polihexanide (PHMB) on critically colonized or infected wounds of hospitalized patients.

Material and Methods:

HWD** was used for the wound bed preparation in 18 patients with 30 very painful, hard-to-heal, vascular wounds admitted to the hospital for skin grafting.

In a sub-group of 8 patients with critically colonised or infected wounds (4 pts. with arterial-, 2 pts. with mixed-, 2 pts. with vasculitic wounds; ulcer duration 6 months to 4 years). PHWD* was applied as primary dressing. As secondary dressing a film*** was used despite of the critical colonization/local infection because the dressings were changed frequently (every day or every other day). 5 (3-7) antimicrobial dressings were used for treatment. Light elastic compression (according to the clinical situation) to avoid/prevent oedema was always applied. Time to wound bed preparation, bioburden, pain and side effects were evaluated.

Results:

PHWD* was effective in debridement and infection control. Time to wound bed preparation was **6.2 ±1.3 days**.

The bioburden in these patients significantly decreased (Fig 1):

initial: 572500 ±401986 cfu; final: 74500 ±174060 cfu

The pain (visual analogue scale, VAS) decreased after 4 dressing changes (Fig 2):

initial: 7.8 ±1.5; final: 5.4 ±1.2

The wound dressing was well tolerated and no damages of the peri-wound skin were seen.

Conclusion:

PHWD** is very effective in infection control, pain reduction, wound bed preparation for promoting a re-start of the healing process and generally well tolerated.

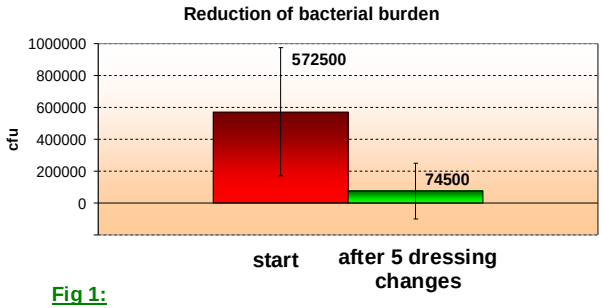


Fig 1:
Significant reduction of bacerial burden after 5 (3-7) dressing changes (n=8)

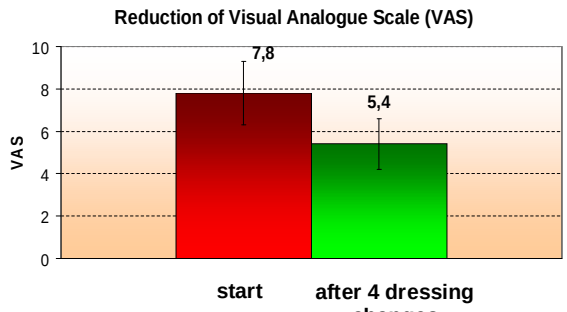
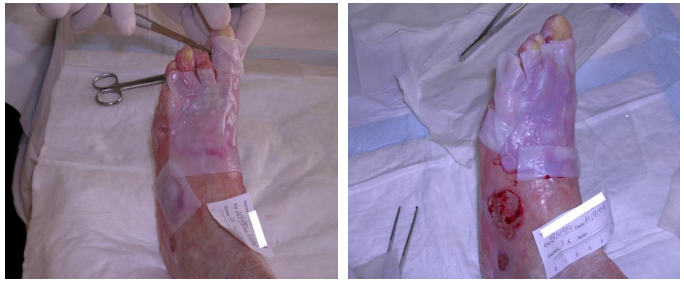


Fig 2:
Reduction of VAS after 4 dressing changes (n=8)

* PHWD = Suprasorb® X+PHMB
** HWD = Suprasorb® X
*** Film = Suprasorb® F
Lohmann & Rauscher products

Anatomic difficult areas: cutting with a scissor, double-layer possible



Case 1

Day 1: 1050000 CFU (ps. aeruginosa; proteus mirabilis; staph. aureus)
Day 6: 2000 CFU (micrococcus)

Case 2

Day 1: 100000 CFU (ps. aeruginosa, staph. aureus)
Day 6: 0 CFU

Scientific grant of Lohmann & Rauscher GmbH & Co KG, Rengsdorf/Germany

Wounds-UK 2008 Wound Care Conference, Harrogate 10-12th November 2008