

Superabsorbent wound dressings in clinical practice - Problem solving in heavy exuding wounds

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Introduction:

The level of exudation in management of both acute but especially chronic wounds is an important point of decision permanently. When we can mark the problem of levels with low exudation to missing exudation as solved (exudation score 1; V. Falanga 2000), exudation score 3 (means uncontrolled exudation) seems to be an existing challenge in wound management. Highest level of exudation can be caused by different triggers: phase of wound healing according to the microbial bioburden (increasing levels of exudation in both critical colonised but also infected wounds); venous, venous-lymphatic or exclusive lymphatic disorders at the starting point of therapy with heavy oedemas or in cases of insufficient (compression-) therapy; cases of injured lymphatic vessels but also in chronic wounds captured in an aggressive micro-milieu (S. Eming 2007).

Management of heavy exuding wounds now is a domain for superabsorbent dressings. Typically they are based on derivatives of polyacrylic acid (PAA). Using such products is really helpful to master normally "uncontrolled" situations in wound exudation. Additionally such dressings are able to form topical milieu conditions actively by reducing the load of proinflammatory cytokines, proteases and radicals *in vitro* (C. Wiegand et al. 2009).

Material and Methods:

We report first systematic experiences using a new superabsorbent dressing*.

A systematic multicentric comparison study is started using a new superabsorbent dressing* in comparison to a well-known absorbent dressing without polyacrylic acid-based components** in patients with heavy exuding wounds of different origin.

Results:

Actually a middle number of cases is already finished in our centre. First experiences show clearly the efficacy of superabsorbent-containing dressings in cases with heavy exuding wounds compared with conventional absorber dressings.

With the superabsorbent dressing* the number of dressing changes is reduced in all cases treated. Peri-wound skin conditions are more stable in these patients due to reliable enclosure of exudate. Logically consistent negative effects on surrounding skin are uncommon in cases treated by the superabsorbent dressing.

Conclusion:

To handle heavy exudation levels in acute and chronic wounds is one step on the way to healing. But the problem is unsolved till this day. Superabsorbent dressings seem to be an answer in cases of uncontrolled exudation.

First clinical results give relatively strong arguments to show an advantage in using such superabsorbent polyacrylic acid dressings in comparison to conventional absorbent dressings.

- * Vliwasorb®/Filvasorb®, Lohmann & Rauscher
- ** like Vliwazell®/Flivazell®, Lohmann & Rauscher

Wound exudat score	Grade of control	Exudat volume
1	Totally controlled	No to minimal
2	Partial controlled	Moderate
3	Not controlled	Heavy exudation

Table 1:
Exudate volume score (Falanga 2000)

Fig.1:
Typical problems of heavy exuding wounds in peri-wound skin conditions: maceration, irritation, instability



Case sample



Day 0: Heavy exuding leg ulceration with mild slough without epithelialisation
global perifocal irritation and instability; discreet distal maceration



Day 7: Heavy exuding leg ulceration with mild slough and onset of epithelialisation
No perifocal irritation; no signs of maceration



Day 14: Moderate exuding leg ulceration without slough
No perifocal irritation and instability; no signs of maceration

Case sample: 77 years old women with heavy exuding leg ulceration (mixed type) and reduction of possibility and efficacy of compression therapy because of reduced arterial circulation situation (arterial occlusive disease II b)