A comparative study investigating the autolytic wound cleansing potential of the Suprasorb® X moist cellulose dressing and the Aquacel® dry cellulose dressing in chronic venous leg ulcers with fibrinous coating

Some initial evidence of a wound cleansing effect of Suprasorb® X was already discussed in the publication by Alvarez et al (2004) (autolytic debridement and reduction of fibrin as compared to the reference group).

With Suprasorb® X – as opposed to Aquacel® – there are positive changes apparent in the wound edges, which might be misinterpreted as maceration by less experienced personnel. These whitish coatings, however, can be easily removed by gentle wiping. Underneath there is an intact epidermis, which appears soft and delicate as compared to the patient's normal skin (so-called “wipe” or “wave” effect). This had already been pointed out by other research teams, e.g. Mustafi and Schmitz (2008). With Aquacel, there are no such changes.

The secondary dressing, however, is an essential factor in both therapy concepts. A film dressing makes the best secondary dressing, as absorbent dressings will dry out the wound in both therapy concepts. This process typically leaves an accumulation of viscous exudates underneath the dry dressing, which inhibits the process of wound healing. This situation can only be controlled by adequate dressing change intervals. With Aquacel®, additional moistening appears to be essential.

The cooling effect of Suprasorb® X is perceived as particularly pleasant by patients.

Whenever there is evidence of at least critical colonisation, adequate local antimicrobial measures should be taken, e.g. by switching to Suprasorb® X+PHMB or Aquacel® Ag.

With regard to the interpretation of “coatings”, a clear definition of terms is urgently needed. In the German-speaking medical community, any type of coating is commonly, but falsely, referred to as “fibrin”. Fibrin as such is defined as a collagenous structure, and generally associated with a progress in wound healing processes. In Anglo-American jargon, a clear distinction is made between “sludge” and “fibrin”. The term “sludge” is used for a conglomerate of coagulated wound exudates, detritus, and coagulation necrosis. (In “Viennese” this is typically referred to as “gatsch”). Due to the identical colour spectrum, an accurate assessment is difficult to accomplish with the naked eye, and a digital analysis requires validation by an experienced wound treatment specialist. In this context, the surface area correlation appears to be a useful parameter for assessment. If the surface area becomes smaller as the yellow coating increases, it is most likely fibrin. Morphologically fibrin can be identified as a thin, delicate film on top of the granulation tissue. In macrophotography, these differences at the tissue level are clearly discernible. These accurate differential diagnoses should definitely be included in the interpretation of data.

The illustrations below show the development over time.

![Graph 1: Wound cleansing effect of Aquacel®](image)

![Graph 2: Wound cleansing effect of Suprasorb® X](image)
History

- Minor trauma on tibial edge; no tendency towards healing after 8 weeks

Diagnosis

- Venous leg ulcer

Previous therapy

- Beta ointment, alginate, protection of wound edges with zinc oxide

Therapy

- Suprasorb® X + Suprasorb® F: too much moisture — switch to Suprasorb® M after 1 week

Duration

- 4 weeks of treatment — dressings changed at 2-day intervals

VAS, before treatment

- 6.5

VAS, after treatment

- 1

References


