



WundForum

The magazine for wound healing and wound treatment

special

Effective cleansing,
better handling –
clinical observations using new
TenderWet active



Effective cleansing, better handling – clinical observations using new TenderWet active

The new TenderWet active is ready-to-use and pre-activated with Ringer's solution. As early clinical observations have shown, TenderWet active cleanses and conditions problematic wounds effectively. Both physicians and patients say they are highly satisfied with the treatment results.

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Treating patients with chronic wounds is laborious and usually characterised by polypragmasy. It often takes months and sometimes even years until a chronic wound closes. In order that the wound-healing process can proceed without disruption, firstly non-vital tissue and coatings must be removed from the wound in order that nothing should stand in the way of the reconstruction of tissues. If the wound is infected, then the bacteria-laden wound exudate should also be eliminated.

Autolytic debridement with TenderWet in the cleansing stage

Where there is severe necrotic tissue and heavy coatings, the stage of wound cleansing should be accelerated with therapeutic measures. In the last few years, autolytic debridement using TenderWet wound dressing pad has proved to be a good alternative to surgical and enzymatic debridement.

TenderWet has an absorbent core made of a super-absorbent polyacrylate. The super absorber which is free from active agents is activated with Ringer's solution which is delivered to the wound (Fig. 2). During this process, necrotic tissue and coatings are softened, loosened and rinsed out. At the same time, the wound dressing pad absorbs bacteria-laden wound exudate into its absorbent core and binds it there. This exchange - Ringer's solution is released and proteins are taken up - functions because the super absorber of

the wound dressing pad has a greater affinity for the protein-containing wound exudate than for the salt-containing Ringer's solution. As the wound is being cleansed of necrotic tissue and other coatings, an environment conducive to cellular migration, angiogenesis and the development of granulation tissue is provided. The aim of using TenderWet is to cleanse the wound such that it is converted to an acute wound.

The new TenderWet active

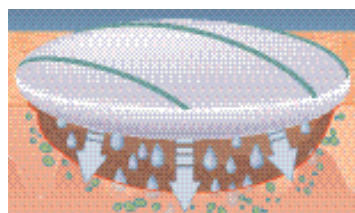
The new TenderWet active, which is already activated with Ringer's solution and ready-to-use, can be placed on the wound without further preparation. The super absorber of the TenderWet active contains a significantly greater volume of Ringer's solution, so that the wound is kept moist over a longer period. Since the wound dressing pad does not adhere to the wound, the pain caused by dressing changes is minimised. Handling is also markedly better. The new TenderWet active is softer and can be moulded without difficulty to fit superficial wounds. Even deeper wounds may be packed more easily. Therefore TenderWet active has direct contact with the wound surface and can cleanse the wound more effectively. This improved effect is backed up by clinical observations of TenderWet active in practice.



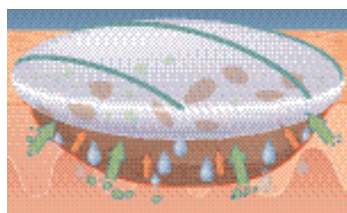
Fig. 1
 TenderWet active cavity
 and TenderWet 24 active
 are available in a variety of
 shapes and sizes to match a
 variety of indications.

The effect of TenderWet

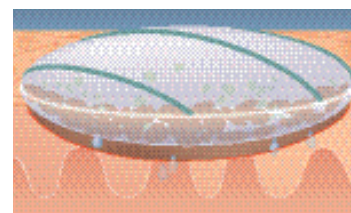
Fig. 2



2a Necrotic tissue are actively softened and detached by the supply of Ringer's solution.



2b At the same time bacteria-laden exudate is absorbed and bound in the absorbent core.



2c Further supply of Ringer's solution promotes the formation of granulation tissue.

Case study 1: 40-year old patient with venous leg ulcers (Ulcer cruris venosa)

In the case of a 40-year old patient with venous leg ulcers (Ulcer cruris venosa), application of TenderWet 24 active over a three-week period effectively cleansed the wound bed of coatings and promoted the formation of granulation tissue. For 4 years the patient had been suffering from recurrent ulcers, which showed no healing tendency. During the initial examination, the patient complained of very severe wound pain which had been treated with ibuprofen and morphine. The ankle joint was completely stiffened and under phlebography, postthrombotic changes were diagnosed.

On 14 April 2004, treatment was commenced with TenderWet 24 active. At this time, the two largest ulcerations were 4.4 x 3.7 cm and 6 x 5.2 cm. The wound base was heavily coated, so that little granulation tissue had formed and no tendency to epithelization was discernible. The wounds also showed profuse exudation, but without any signs of infection (Fig. 3a). In addition to the wound treatment, the patient received analgesics, lymph drainage, physiotherapy and compression treatment.

During the three-week application of TenderWet 24 active, the coatings, wound exudate and wound pain all decreased significantly. At the same time, there was an increase in granulation tissue and the formation of epithelial tissue. A final examination on 7 May 2004 revealed that a clean wound base had formed, with only slight wound exudation. The size of the wounds had reduced by approximately one third (Fig. 3b/c). In addition, the patient now complained of only moderate pain. The condition of the wound site had also significantly improved under treatment with TenderWet 24 active. Whereas at the initial examination, the patient had been suffering from wound margin oedema, maceration, eczema, hyperkeratosis and reddening, at the final examination, only one area of eczema was still present. Thanks to the clean wound base, the patient's dressing was able to be changed over to the foam dressing PermaFoam.

These good clinical successes were reflected in the assessment of the wound by the physician and the patient. According to the treating physician, treatment with TenderWet 24 active exceeded her expectations. She assessed the moisture content of the wound dressing at dressing changes particularly positively, as well as the resulting fact that TenderWet active does not stick to the wound. She also assessed the handling of the materials and the wound-cleansing and granulation-promoting effect as very good. As this case shows, TenderWet 24 active also worked very well under the accompanying compression treatment.



40-year old patient with venous leg ulcers (Ulcer cruris venosa)

Fig. 3a
Condition of the wound at initial examination, Ulcer at the medial malleolus: The wound base is heavily coated and the wound is exuding severely.

Fig. 3b
The dry necrotic tissue and fibrin coatings are softened and detached after one-week application of TenderWet.

Fig. 3c
Final examination after three weeks: The dry necrotic tissue were loosened and removed and new epithelial and granulation tissue had formed. The wound size had reduced by approximately one third.

The patient being treated tolerated the wound dressing pad well according to her own assessment and also evaluated the wearing comfort as good.

Case study 2: 45-year old patient with a chronic wound after insect bite

Another very interesting case that was successfully treated with TenderWet active was that of a 45-year old woman who had suffered an insect bite on her leg, which had developed into a chronic wound with no tendency to healing after 45 days. Initially she was treated unsuccessfully with Mercurochrome and subsequently with Leukichtan gel.

At the initial examination on 31 March 2004, the wound measured approximately 1.5 x 1 cm with a depth of about 1 cm. The patient complained of severe pain. The wound base showed signs of necrosis, which before application of TenderWet was debrided surgically. To date, the wound had not formed either granulation tissue or epithelial tissue, in addition to which it was infected and exuding severely, and the wound site was oedematous and reddened (Fig. 4a).

45-year old patient with a chronic wound after insect bite

Fig. 4a

Condition of the wound at initial examination:

The necrotic tissue were removed surgically.

The wound was infected and had a heavy exudate; the wound site was reddened and oedematous.

Fig. 4b

After five days application of TenderWet the wound was completely covered with granulation tissue and no recognisable exudation was found.

Fig. 4c

Final examination after two weeks: About 60% of the wound area was covered with epithelial tissue and the wound site showed no further adverse signs.



After only five days of treatment with TenderWet active all the necrotic tissue had been debrided and the wound had a complete coverage of granulation tissue. The formation of epithelial tissue had also begun. On 14 April 2004, after two weeks of TenderWet active application, 60% of the wound base was covered with epithelial tissue. The size of the wound had also shrunk to approximately 0.3 x 0.4 cm with the wound site showing no further adverse signs (Fig. 4b/c).

The treating physician assessed the moisture content of the wound dressing during dressing changes, the handling, the wound cleansing and the enhancement of granulation all together as very good as well as the fact that the new TenderWet active does not stick to the wound during dressing changes. The expectations placed on the wound dressing were again exceeded and, above all, the rapid cleansing effect was particularly remarkable. The patient assessed TenderWet active similarly positively. Both, the tolerance as well as the wearing comfort were evaluated as very good.

Conclusions

The two documented cases show that the new TenderWet active effectively debrides chronic wounds and successfully conditions the wound bed for the further healing process. The greater volume of Ringer's solution that is now bound into the super absorber of TenderWet active cleanses the wound faster, while also preventing adhesion to the wound. The softer material properties additionally permit the wound dressing pad to be adapted to the wound more easily. This is perceived by the user and the patient as very positive.

Compared with TenderWet, the new TenderWet active has two distinct advantages. Firstly, since it is already activated with Ringer's solution and ready-for-use, clinician and patient no longer have to wait until the wound dressing pad has absorbed the Ringer's solution. This not only saves time, but also avoids errors. Secondly due to the larger quantity of Ringer's solution retained inside the pad, it is improbable that the dressing or the wound will dry out during treatment.

These advantages of TenderWet active were confirmed in a first application test where 19 cases were documented, 8 of them with venous leg ulcers (*Ulcer cruris venosa*) and 5 with decubital ulcers. All treating physicians assessed the moisture content of TenderWet active as very good or good. 95% of the users rated the wound-cleansing and granulation-promoting effect as very good or good. The expectations of the physicians on wound treatment with TenderWet active were exceeded or fulfilled in 80% of cases. The treated patients assessed their experiences as positively as the physicians. Over 90% rated the wound treatment with TenderWet active as very good or good. All treated patients rated their overall impression of TenderWet active as good or very good including wear comfort and the decrease in wound pain.

Like TenderWet, the new TenderWet active is indicated for poorly-healing wounds with heavy exudation, massive germ load and for chronic wounds of various geneses, such as diabetic foot syndrome, decubital ulcers or venous leg ulcers. Furthermore, due to its cleansing and conditioning effects, the wound dressing pad increases the chances of success in split-skin grafts that the graft will grow and adhere. ■