THE CARE OF PATIENTS WITH STAGNATING DIABETIC FOOT ULCERS USING A COLLAGEN DRESSING

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Aim:
The study was designed to evaluate the efficacy of a collagen dressing (SC) on inflammation reduction and re-starting the stagnating healing process in twenty-five diabetic foot ulcer patients in an ambulant setting. SC has shown in vitro to have a high binding capacity for different pro-inflammatory mediators, like proteases and cytokines.

The collagen dressing employed in the study is able to absorb large amounts of fluids, because of its porous structure and high capillary activity, while retaining a moist wound environment (Fig.1).

Methods:
25 Patients with non-infected, debrided and/or granulating stagnating diabetic foot ulcers were included in the study, using case ascertainment. Patients received a collagen dressing and a foam as a secondary dressing, for a treatment period of 26 weeks, after which the collagen dressing was discontinued and the foam used as a primary dressing. Wound healing was assessed using clinical observation and digital photographs, comparing day 0 versus day 28 results. Patients were then followed until healing. The diabetic foot ulcer patients received the centres usual prevention measures, (off loading, callus removal, infection prevention and skin care).

Results:
The stagnating ulcers started to heal within the 28 days of collagen treatment, with a mean healing time of 42 days. The collagen dressing was safe and easy to use. It absorbs exudate and forms a soft biodegradable gel, which rebalanced the wound environment, restarting the promotion of granulation and re-epithelialization. As an illustration two typical cases are shown.

Conclusion:
The results of this cohort study supports published data on the use of collagen dressings, demonstrating starting up the healing process in stagnating wounds as shown in randomized controlled clinical studies.

References:

Case 2:
The 50 year-old female has DM type II since 2006. She is morbidly obese, has heart failure, retinopathy, neuropathy, limited joint mobility and hypertension. Abnormal fat spectrum, HbA1c (average blood glucose value of the last 6 to 8 weeks) 7.0% = 53 mmol/mol. Visit to the clinic with a recurrent ulcer. (Fig.6) DM is controlled with insulin 4 times a day. Further treatment was started with oral antibiotics, weekly callus removal, offloading with padding material and mobilization according to clinical presentation. "Collagen was applied covered with a foam". Complete ulcer closure was achieved in 10 weeks. (Fig.6). The patient was referred to an orthopedic shoemaker for footwear and seamless sox. (8 pairs/year are reimbursed by the health insurers). The patient is followed up by a DSN and visits the rehabilitation ward to prevent ulcer recurrence. (Fig. 6-8)

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*Suprasorb® C, **Suprasorb® P, Lohmann & Rauscher GmbH, Rengsdorf, Germany