Evaluation of the amelioration of skin xerosis in a diabetic patient population followed by a group of podiatrists in a multidisciplinary setting and treated with a Naqi-Body Care® cream, medical skin care

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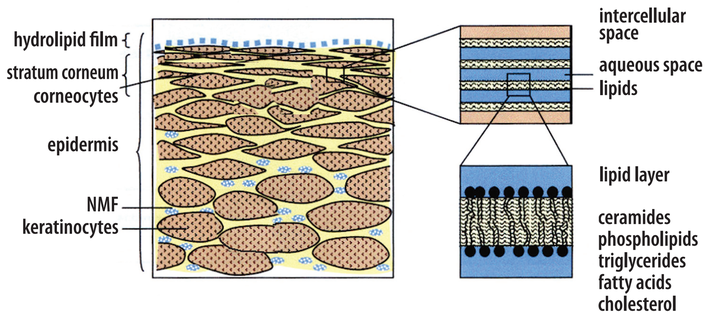
Introduction

In diabetic patients xerosis can appear when there are secondary neuropathic or vasculopathic disorders. The reduced flexibility in the stratum corneum leads to the formation of microfractures that provide points of entry for infectious agents. Xerosis can also aggravate the pruritis.

The treatment of diabetic xerosis should improve the quality of life of patients and boost preventive anti-infectious measures. Very few dermocosmetic products are specifically aimed at controlling diabetic xerosis and very few studies have been dedicated. We performed a study with Naqi Body Care®.



This cream is designed specifically to correct diabetic xerosis:

- The CM-glucan is likely to act as an immunostimulant and epidermal repair accelerator;
- The L-carnosine is a neuropeptide whose effects include the prevention of protein glycation and hence the formation of AGEs (Advanced Glycation End products);
- The corn oil peroxide produces an anti-inflammatory effect by inhibiting the enzyme 5-lipoxygenase.

Various other ingredients in the Naqi formulation are intended to change the lamellar lipid structure of the stratum corneum in order to improve its barrier function. It also contains humectants designed to retain more water in the stratum corneum.

Methods

In this study, patients visiting the podiatry department were asked to take part in a prospective observational study in case they had a dry skin. At the start, all abnormalities of the skin were scored.

Patients were asked to cream their feet twice a day. A follow-up with the podiatrist (pod) was organised at 4 and 8 weeks. The quality of the skin was evaluated by the patient (pa) every 2 weeks.

The following aspects were taken into consideration: dry feel of the skin, roughness, the presence of scales and the suppleness of the skin.

At the end, the quality of the cream was evaluated on the basis of these characteristics: viscosity, spreadability, penetration of the product into the skin, softness, hydration and lastly an eventual prickling feel.

Results

1. Patient characteristics

A cohort of 89 patients took part in the study. The mean age of the patients was 60.2 +/- 1,5 years and the duration of their diabetes 14,3 +/- 1,6 years. 67.7% of the participants are male. All patients had skin xerosis at the start of the study, of which 57.6% in a relatively severe form. 42.4% had blisters.

2. Skin Evaluation

After a period of two weeks, 53.40% of the patients showed a sufficient amelioration of the skin **roughness**. After eight weeks a visible amelioration in 39.70% (pa: 37.9 %) of the patients' skin was noted. 20.7% of the patients (pa + pod) had regained a normal skin.

As far as the **suppleness** of the skin goes, 51.90% (pa: 47.1 %) of the patients showed a visible skin amelioration after eight weeks. 14.80% (pa: 21.6 %) showed a normal skin.

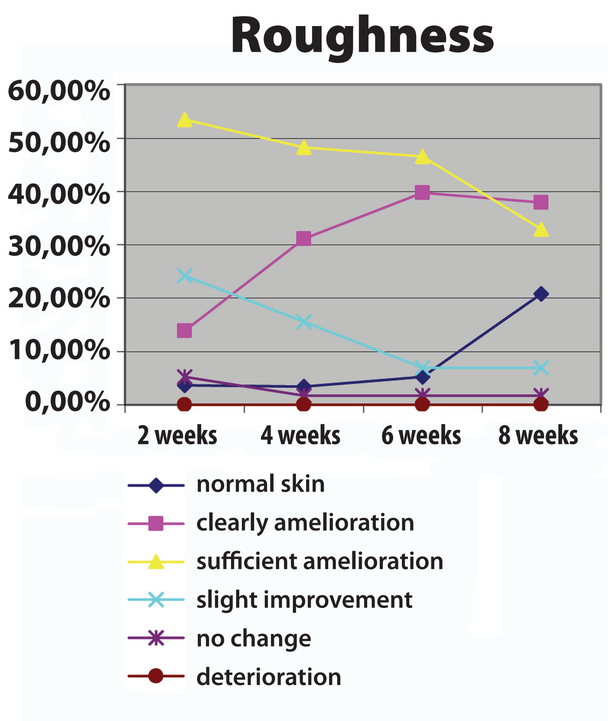
The **dry feel** of the skin had visibly ameliorated after four weeks in 39.30% (pa: 29.5%) of the patients. After eight weeks this number went up to 45.90% (pa: 45.9%). The skin felt normal in 15 % (pa: 14.8%) of the patients.

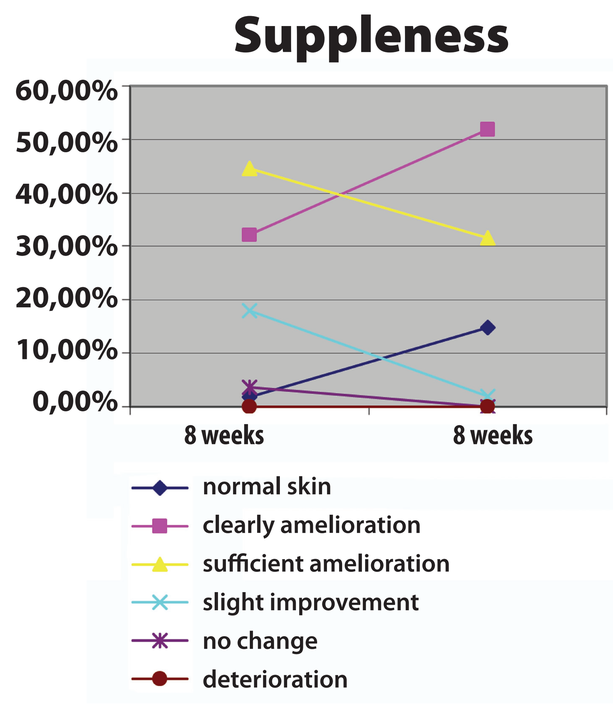
After 4 weeks the **xerosis** (evaluated solely by the podiatrist) had clearly and visibly ameliorated in 32.8 % of the patients. No more than 1.7% of the patients showed no improvement after four weeks.

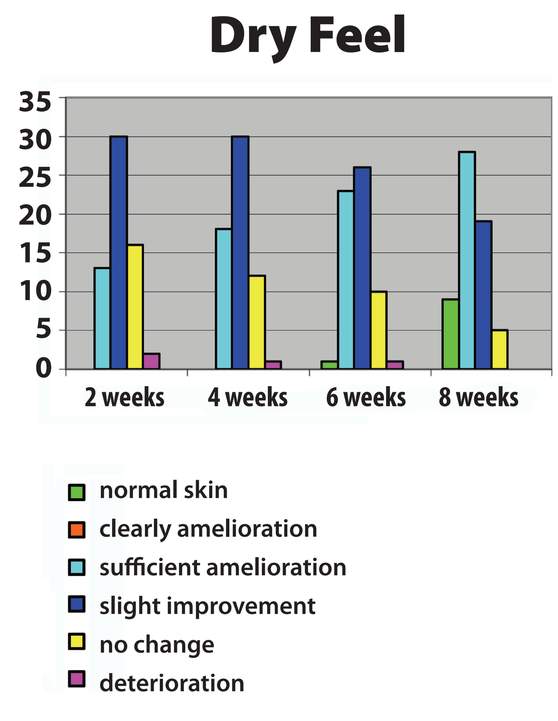
At the end of the study 23.3 % of the patients had a normal or almost normal skin. 66.6 % of the patients in the testing group showed a sufficient and visible amelioration.

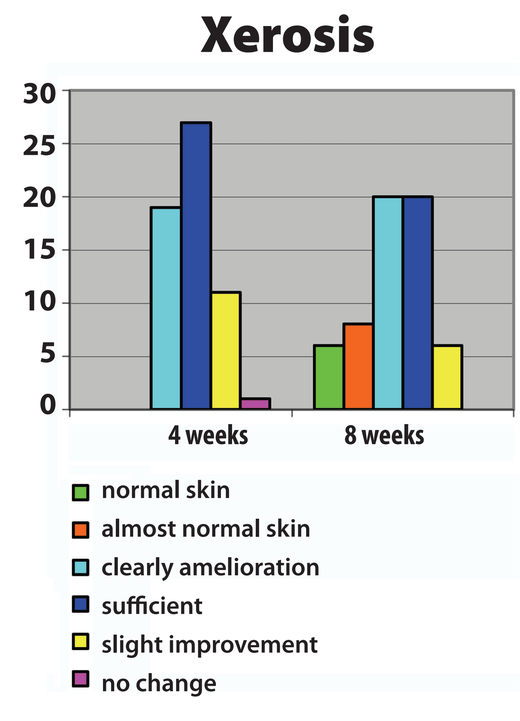
3. Cream evaluation

The cream itself was evaluated in a similar way, both by the patient and the podiatrist. Each party gave scores for perfect viscosity (pa: 66.1% vs. pod 74,6%), rapidity of penetration (pa: 50% vs. pos 42,4%), and feeling of very good hydration (pa: 39,7% vs. pod: 35,6%) . Almost no skin irritation was noted (pa: 94.9% vs. pod: 96,6%).









Conclusion

The compliance of the patients during the course of this small study was high. The positive effects of the cream on the amelioration and restoration of the skin were clear and visible after a relatively short period of time.

Hence, the cream is positively evaluated, both by the podiatrists as the patients. There was no significant difference between both parties' scores. Further studies are required to evaluate the long term effect of the cream.

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Sponsered by Naqi

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