Promoting a healthy skin barrier using skin care in people with mature skin xerosis

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Introduction:

Most people are living into their sixties and beyond nowadays.[1] Fundamental dermal and epidermal changes in chronologically aged skin have significant and widespread dermatological implications.[3,4] It was demonstrated that xerosis had a prevalence of 55.6 % in individuals with mature skin, with a mean age of 75.1 years.[5] This review discusses aging-associated alterations in epidermal function leading to xerosis and related pruritus and the benefits of maintaining or restoring a healthy skin barrier using skincare, specifically ceramide-containing skincare.

Methods:

A panel of seven dermatologists (panel) convened for a meeting to review aspects of xerosis in mature skin, skin barrier changes, and nuances in the treatment and maintenance of mature skin using gentle cleansers and moisturizers.

From the selected literature, thirteen statements were drafted. During the meeting, the draft statements underwent the panels' evaluation at a workshop, followed by a plenary discussion adopting five statements using evidence from the literature coupled with the panels' opinions and experiences (Table 1).

Table 1: Statements

No	Statements
Statement 1	The exact etiology of xerosis is not entirely understood and likely depends on several genetic and environmental mechanisms.[6,7]
Statement 2	Xerosis in older adults is multifactorial and may include intrinsic age-related changes, use of diuretics and similar medications, systemic conditions, hypothyroidism, and overuse of heaters or air conditioners. [6,7]
Statement 3	Aging-associated changes in epidermal function include a 30% reduction in total lipids in the stratum corneum relative to young skin due to reduced epidermal lipid synthesis.[5]
Statement 4	In aging skin, xerosis is significantly associated with pruritus.[8]
Statement 5	Moisturizers containing urea, ceramides, and lactate have shown benefits in promoting a healthy skin barrier structure and function in xerotic skin.[9-11]

References

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Fig 1: Physician evaluation of roughness/desquamation, discomfort, and fissures

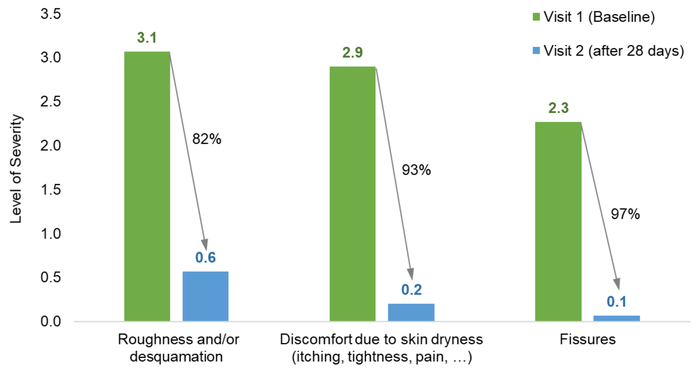
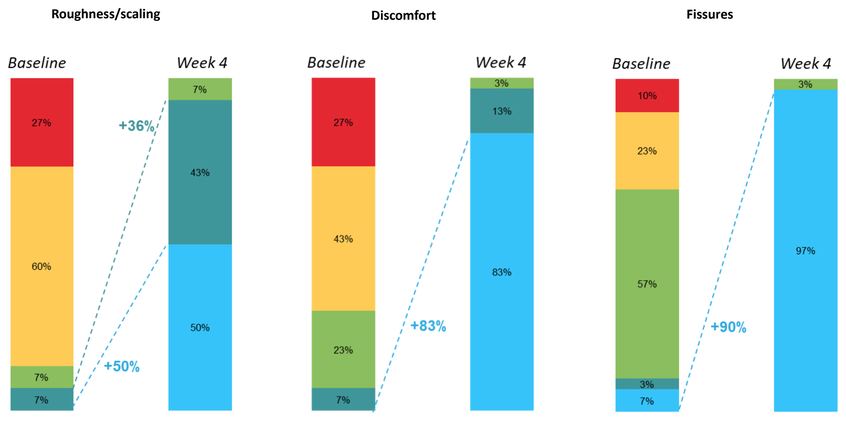


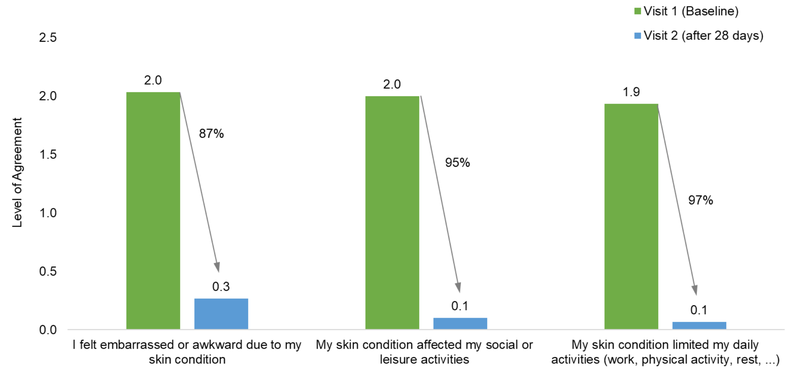
Fig 2: Patients evaluation of roughness/desquamation, discomfort, and fissures



Conclusion:

The development of xerosis in mature skin involves several genetic and environmental mechanisms, keratinization changes, and the stratum corneum's lipid content. Xerosis is characterized by decreased quantity and quality of lipids and/or moisturizing factors and is generally diagnosed on clinical presentation. Studies have shown that lipid-containing skin care, such as a gentle ceramide-containing cleanser and moisturizer, promotes a healthy barrier reducing xerosis and pruritus in individuals with mature skin.

Fig 3: Improvement in quality of life after 4 weeks of treatment



Average calculated on the scale of level of severity: Strongly disagree (0) – Strongly agree (3)

Results:

Xerosis is an important concern in mature skin together with associated pruritus.[5-8]

Studies using ceramide-containing skincare have demonstrated improvements in skin hydration, reducing xerosis, pruritus, and discomfort due to xerosis in atopic dermatitis and individuals with xerosis of the legs.[9,10]

Filippi and colleagues worked with the assumption that using a ceramide-containing gentle cleanser and moisturizing cream may offer benefits for xerosis in mature skin. They included thirty men (63%) and women (37%) over 70 years of age with xerosis in a clinical study.[11]

Subjects applied the ceramide-containing cleanser (once daily) and moisturizing cream# (at least twice daily) for four weeks.

Physician and patient evaluation (5-point scale) were at baseline and after 28 days scoring dryness, roughness and/or desquamation, discomfort, fissures, and cracks. Patients scored quality of life (4-point scale) aspects at baseline and four weeks.

The mean physician scores at week four decreased for roughness and desquamation from 3.1 to 0.6 (-82%), discomfort due to xerosis from 2.9 to 0.2 (-93%), and fissures from 2.3 to 0.1(-97%) (Fig 1).[11]

The patients reported that xerosis improved for all parameters (Fig 2). In addition, patient QoL improved, with 77% no longer feeling embarrassed due to their condition, and ≥ 90% do not feel their condition affects their social/leisure activities or daily activities (Fig 3).[11]

#CeraVe cleanser and Moisturizing Cream

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