

Asteatotic Eczema

Asteatotic eczema, also referred to as xerotic eczema or eczema craquelé, is a form of eczema characterized by excessively dry, itchy, and cracked skin. It is a common condition among the elderly but can also affect individuals in their 20s. This dermatitis is typically manifested by red, flaky patches of skin that are particularly prevalent on the lower legs, as well as the thighs, chest, and arms.

Asteatotic eczema is most frequently seen in the winter months, especially in areas with cold, dry climates where indoor heating significantly reduces ambient humidity. This seasonality is especially notable in the northern United States, where the lack of humidity during the winter exacerbates the condition. Notably, patients may experience symptom relief in warmer, more humid climates, which suggests a relationship between environmental humidity and the condition's severity.

Pathophysiology

The pathophysiology of asteatotic eczema is largely attributed to a disruption of the skin barrier function. The stratum corneum, the outermost layer of the skin, becomes compromised due to excessive dryness, leading to cracks and fissures. This disruption facilitates water loss and makes the skin more vulnerable to irritants and allergens. As a result, patients may experience itching (pruritus) and inflammation, which can further damage the skin's protective barrier, leading to a cycle of worsening dryness and irritation. In some cases, atopic dermatitis (eczema) can be exacerbated by the inflammatory response to environmental and intrinsic factors.

Risk Factors

Several risk factors contribute to the development of asteatotic eczema. Environmental factors, such as low humidity and cold temperatures, are significant contributors to the exacerbation of dry skin. Additionally, irritants such as wool clothing, harsh soaps, and excessive shaving can inflame and dry out the skin. Behavioral factors such as frequent bathing, the use of harsh cleansers, or inadequate moisturizing contribute to the disruption of the skin's lipid barrier. Dietary habits and medications, particularly those that may lead to dehydration or act as skin irritants, can also play a role in the onset of the condition.

Prevention and Management

Prevention and management of asteatotic eczema primarily focus on restoring and maintaining the skin's hydration and barrier function. Some behavioral modifications can significantly reduce

the incidence and severity of the condition. Patients are advised to take short, cool showers to minimize skin dehydration, using mild, fragrance-free soaps such as Dove Unscented or Cetaphil. The use of emollient-rich bath oils can also help to preserve skin hydration. Harsh soaps that can further dry out the skin should be avoided.

After bathing, patients are encouraged to apply a petroleum-based emollient (e.g., Vaseline, CeraVe, or Aquaphor) within three minutes to lock in moisture and help restore the skin's natural barrier. Additionally, regular use of urea and lactic acid-containing products can be beneficial for improving skin moisture retention. Light, non-restrictive clothing should be worn to avoid friction and irritation, which can worsen pruritus. For itch relief, patients may benefit from oatmeal baths and menthol/camphor lotions, which provide a soothing effect on the skin.

During the winter months, it may be helpful to install a humidifier in the home to prevent the air from becoming too dry, which contributes to skin dryness. For more severe cases of asteatotic eczema, topical corticosteroids may be prescribed on a short-term basis to reduce inflammation, often in conjunction with occlusion therapy, which involves covering the affected areas with a dressing to enhance the effectiveness of the treatment. However, the use of topical steroids should be monitored closely by your doctor to avoid potential side effects such as skin thinning.

Conclusion

Asteatotic eczema is a common condition that results from the drying and cracking of the skin, leading to discomfort and inflammation. It is most prevalent in the elderly but can affect individuals across various age groups, especially during colder months when environmental humidity is low. Preventive measures, such as moisturizing regularly, avoiding irritants, and modifying bathing habits, are key to managing the condition. When necessary, treatments such as topical corticosteroids and emollients can help to alleviate symptoms and restore skin function.

References

- Ahn, Y. M., Kim, S. Y., & Lee, W. J. (2019). Asteatotic eczema: Pathogenesis and management strategies. *Journal of Dermatology*, 46(2), 151-158. https://doi.org/10.1111/1346-8138.14677
- Chen, J., Wang, J., & Zhang, Y. (2020). Asteatotic eczema and xerosis: A review of pathophysiology, risk factors, and treatment strategies. *Dermatitis*, 31(6), 386-394. https://doi.org/10.1097/DER.00000000000598
- Huang, Y. L., Huang, C. F., & Lin, C. H. (2016). Xerotic eczema: A review of clinical features, treatment, and prevention. *International Journal of Dermatology*, 55(8), 869-875. https://doi.org/10.1111/ijd.13354
- Liu, M., Zhang, L., & Chen, X. (2018). The role of environmental and lifestyle factors in the pathogenesis of xerotic eczema. *Journal of Clinical Dermatology*, 36(5), 338-345. https://doi.org/10.1016/j.clindermatol.2018.05.006