

## Abstract

Erythroderma, which is also called exfoliative dermatitis, is a rare, potentially fatal condition characterized by dry, scaly, and sloughing of skin throughout the body. Affected patients often experience significant physical and emotional distress. This case report describes the presentation, workup, and management of a patient with new, progressive erythroderma.

## Introduction

- First described by Von Hebra in 1868, erythroderma is a rare, potentially life-threatening condition characterized by varying degrees of dry, scaly, and sloughing of skin in greater than 90% of the surface area of the body.<sup>1</sup>
- In adults, the estimated annual incidence of erythroderma is 1-2 in 100,000 individuals, with older men more commonly afflicted compared to women and younger persons.<sup>2</sup>
- The etiology of erythroderma is wide-ranging and includes pre-existing dermatoses (most commonly eczema and psoriasis), medications (e.g., certain antiepileptics and antibiotics), malignancies such as cutaneous T-cell lymphoma and solid organ cancers, as well as idiopathic cases.<sup>3</sup>

## Case Description

A 63-year-old African American male was admitted to the hospital with complaint of severe bilateral foot pain and leg swelling, resulting in difficulty with weight bearing.

Prior to the current admission, the patient had multiple emergency department visits complaining of new progressive dry, scaly, and pruritic skin. Two of those visits resulted in hospitalization.

Skin biopsy during the first hospital course showed spongiotic dermatitis and psoriasiform epidermal hyperplasia. The patient was discharged with the diagnosis of erythroderma and instructed to follow up with dermatology.

During the second hospital course, contrast computed tomography of the abdomen and pelvis performed due to concern for concomitant malignancy showed superficial lymphadenopathy in the right inguinal region. Lymph node biopsy was negative for evidence of malignancy.

Physical exam during the current (third) hospitalization found the patient was anxious, tachycardic, and tremulous with painful pitting edema to the knees. Detailed skin examination showed deep plantar fissures, widespread scaly skin with excoriations, and sloughing of skin in the soles and palms (see figures 1-4).



**Figure 1 and 2.** Pitting leg edema, widespread scaly skin with excoriations, sloughing off skin.



**Figure 3 and 4.** Deep plantar fissures, widespread scaly skin, sloughing off skin in the soles.

Treatment included lanolin-mineral oil applied topically throughout the body, and topical corticosteroids applied to the lower extremities. The patient also received emotional support from spiritual services.

Symptoms improved and the patient was discharged home on day two, with follow-up appointments with dermatology and primary care physician.

## Discussion

This case illustrates debility arising from gradually progressing erythroderma. It exemplifies the importance of incorporating emotional support during management, and the imperative to connect patients with post-acute care to monitor disease course and prevent recurrent acute care visits.

## Conclusion

- The severity of erythroderma necessitates appropriate diagnosis, identification of the underlying etiology, and management.<sup>1,3</sup>
- A holistic approach to care is warranted to alleviate the physical and emotional distress experienced by patients with erythroderma.

## References

1. Austad SS, Athalye L. Exfoliative Dermatitis. [Updated 2020 May 18]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK554568/>
2. Hasan T, Jansén CT. Erythroderma: a follow-up of fifty cases. *J Am Acad Dermatol.* 1983;8(6):836-840. doi:10.1016/s0190-9622(83)80013-9
3. Miyashiro D, Sanches JA. Erythroderma: a prospective study of 309 patients followed for 12 years in a tertiary center. *Sci Rep.* 2020;10(1):9774. Published 2020 Jun 17. doi:10.1038/s41598-020-66040-7

## Acknowledgements

Thank you to Dr. Nairmeen Haller of the Department of Research, Cleveland Clinic Akron General, for her comments on the abstract and poster for this case report.

Author email: pk980817@ohio.edu