

A rare image of zinc responsive acral hyper keratosis

*Corresponding Author: **Abhishek Patil**

Email: abhi.neuro@gmail.com

Abhishek Patil^{1*}; Sourabh Deshmukh²; Trupti Thakre³

¹PG Scholar, Dept of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital & Research Centre, Salod (H), Wardha, Datta Meghe Institute of Higher Education & Research (Deemed to be University), Maharashtra, India.

²Professor, Dept of Kayachikitsa, Mahatma Gandhi Ayurved College, Hospital & Research Centre, Salod (H), Wardha, Datta Meghe Institute of Higher Education & Research (Deemed to be University), Maharashtra, India.

³Assistant Professor, Dept of Kaumarbhrytya, Mahatma Gandhi Ayurved College, Hospital & Research Centre, Salod (H), Wardha, Datta Meghe Institute of Higher Education & Research (Deemed to be University), Maharashtra, India.

Received: Sep 19, 2024

Accepted: Oct 16, 2024

Published Online: Oct 23, 2024

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Cite this article: Patil A, Deshmukh S, Thakre T. A rare image of zinc responsive acral hyper keratosis. J Clin Med Images Case Rep. 2024; 4(5): 1748.

Keywords: Acral hyperkeratosis; Hepatitis C infection; Necrolytic acral erythema; Zinc.

Description

Acral hyperkeratosis that responds to zinc usually manifests as symmetrically distributed, long-lasting, well-defined hyperpigmented plaques over the acral areas of the body. It is a condition that causes thickening of the skin on the hands and feet. Zinc deficiency can be a cause of acral hyperkeratosis, Zinc is a necessary mineral for various body processes, such as skin health and wound healing. A deficiency of zinc in the body can result in various skin issues, including acral hyperkeratosis [1]. A 50-year-old man came in with a six-month-old, slightly itchy, scaly, raised lesion over both of his feet that was darkly colored and somewhat irritating. In the past, he was treated with oral methotrexate, tacrolimus, emollients, and strong topical steroids without any improvement. A cutaneous examination of the dorsum of the feet revealed bilaterally symmetrical, well-demarcated hyperpigmented plaques. Systemic and general ex-

amination results were normal. Examination of the hair, nails, palms and soles, oral mucosa, and Auspitz sign showed no abnormalities. The differential diagnosis of zinc-responsive acral hyperkeratosis, acquired zinc deficiency, psoriasis vulgaris, acral Acanthosis Nigricans (AN), and Lichen Simplex Chronicus (LSC) was retained. The final diagnosis is zinc-responsive acral hyperkeratosis which is shown in (Figure 1).

The most similar condition to this one is necrotic acral erythema (NAE), which can be distinguished based on histology. Therapeutic line of treatment is oral zinc with 200 mg of zinc sulfate two times daily along with 10% urea containing emollient for local application. We describe an uncommon entity that responds to oral zinc supplementation and has a distinctive clinical appearance of symmetric acral hyperkeratotic plaques that last for a long time. It is discovered that this entity is resistant to several forms of therapy [2]. Zinc therapy is also effective.



Figure 1: Hyperpigmented plaques can be seen, which are the cardinal features for the diagnosis of zinc responsive acral hyperkeratosis.

tive in treating NAE, which shares clinical similarities with zinc-responsive acral hyperkeratosis. It is a member of the group of other necrolytic erythema, which also includes necrolytic migratory erythema, acro dermatitis enteropathica, pellagra and biotin deficiencies, and essential fatty acid deficiencies. El Darouti and Abu el Ela initially reported it in Egypt in 1996 [3,4]. NAE was identified by Abdallah et al. in 2005 as a cutaneous indicator of hepatitis C virus (HCV) infection. He examined thirty NAE patients in total, all of them tested positive for the hepatitis C virus serology [5].

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