

Refractory Chronic Hand Eczema Responds to Oral Upadacitinib

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Introduction

Hand dermatitis is a common inflammatory skin condition that greatly affects quality of life and productivity. It can be caused by endogenous causes like atopic dermatitis, or exogenous causes like contact dermatitis either irritant or allergic [1]. Treatment options for hand dermatitis include topical and oral medication, phototherapy. However, severe and difficult-to-treat cases, particularly those not associated with atopic dermatitis, have limited treatment choices [2,3]. Research is ongoing to explore the use of immunomodulatory drugs, like Janus Kinase (JAK) inhibitors, for chronic hand eczema [2].

Case Presentation

A 58-year-old woman with a history of chronic hand eczema was referred to our Dermatology Department due to significant deterioration of her condition. This deterioration was

characterized by extreme pruritus and severe dryness primarily on the palmar surfaces of both hands (Figure 1). The patient condition had worsened after the COVID-19 pandemic started. She sought medical intervention following the intense exacerbation. The patient had neither personal nor familial history of atopic dermatitis or other form of atopy. Several diagnostic procedures were done, including a patch test, standard laboratory tests and mycological culture were negative. A skin biopsy (performed outside our institution) revealed eczematous changes. Before coming to our clinic, she had been treated with a variety of topical medications, including topical clobetasol, topical tacrolimus, with little or no relief. A 3-month trial of NB-UVB phototherapy was conducted 3 times per week. Despite this treatment regimen, no alleviation of itchiness was observed, and the lesions remained resilient and persistent.

Due to limited options and the unavailability of alitretinoin and dupilumab in our hospital, we offered conventional immunosuppressants (eg methotrexate, cyclosporin), but the



Figure 1. Thickening of the skin, scaling, and areas of hyperkeratosis on palmer aspect of both hands, prior to starting oral upadacitinib.



Figure 2. After 2 weeks of oral upadacitinib 15 mg once daily.

patient opted out. After explaining possible side effects, the patient agreed to start on a novel JAK inhibitor drug available in our institution. Upadacitinib 15 mg once daily was initiated, and a follow-up appointment was arranged after 2 weeks. The patient exhibited substantial improvement at follow-up (Figure 2). No adverse effects were documented. Informed consent was obtained from the patient to share this case.

Conclusions

Hand dermatitis or hand eczema is a clinically diverse illness in terms of etiologies and clinical symptoms. Patients with refractory chronic hand eczema who failed multiple management options, as in our patient, require other options such as conventional immunosuppressants (eg cyclosporin, methotrexate) or systemic retinoids [1-3]. Upadacitinib is an oral medication

that has received approval from the FDA for the management of moderate- to- severe atopic dermatitis in adults and adolescents aged 12 years and older. The mechanism of action of upadacitinib involves the inhibition of JAK [4]. This case highlights the efficacy of upadacitinib as a promising therapeutic option for refractory hand eczema. Despite multiple treatment trials, the patient did not achieve remission. However, the initiation of oral upadacitinib resulted in remarkable improvement. Further studies are needed to determine the long-term efficacy and safety of upadacitinib in treating hand eczema.

References

1. Agarwal US, Besarwal RK, Gupta R, Agarwal P, Napalia S. Hand eczema. *Indian J Dermatol*. 2014;59(3):213-224. DOI:10.4103/0019-5154.131372. PMID: 24891648. PMCID: PMC4037938.
2. Thyssen JP, Schuttelaar MLA, Alfonso JH, et al. Guidelines for diagnosis, prevention, and treatment of hand eczema. *Contact Dermatitis*. 2022;86(5):357-378. DOI:10.1111/cod.14035. PMID: 34971008.
3. Elsner P, Agner T. Hand eczema: treatment. *J Eur Acad Dermatol Venereol*. 2020;34 Suppl 1:13-21. DOI:10.1111/jdv.16062. PMID: 31860736.
4. Guttman-Yassky E, Teixeira HD, Simpson EL, et al. Once-daily upadacitinib versus placebo in adolescents and adults with moderate-to-severe atopic dermatitis (Measure Up 1 and Measure Up 2): results from two replicate double-blind, randomised controlled phase 3 trials. *Lancet*. 2021 5;397(10290):2151-2168. DOI: 10.1016/S0140-6736(21)00588-2. Epub 2021 21. Erratum in: *Lancet*. 2021 Jun 5;397(10290):2150. DOI: 10.1016/S0140-6736(21)01214-9. PMID: 34023008.