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# Non-Eczematous Vesiculobullous Skin Eruption after Stevens-Johnson Syndrome: Developed without Intravenous Immunoglobulin Therapy

Jin A Kim, Miri Kim, Baik Kee Cho, Hyun Jeong Park

*Department of Dermatology, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea*

Dear Editor:

Pompholyx is a chronic relapsing inflammatory vesiculobullous skin disease of the hands and feet that is histologically characterized by intraepidermal spongiotic vesicle formation with epidermal and dermal inflammatory cell infiltration[1]. Intravenous immunoglobulin (IVIG) administration has been proposed to be a cause of pompholyx in previous reports[2-4]. There is one case report for non-eczematous vesiculobullous eruption induced by IVIG in a patient with Stevens-Johnson syndrome (SJS)[5]. We report a case of non-eczematous vesiculobullous skin eruption occurred in the recovery period of SJS treated only with systemic steroid. This study is approved by Catholic Medical Center (IRB No. SC13RISI0040).

A 30-year-old man presented to the emergency center with asymptomatic multiple erythematous papules and plaques on the whole body and painful erosion of the lips and conjunctivae. He had taken allopurinol for 3 weeks for hyperuricemia. He was referred to the dermatology department for the skin manifestations and was admitted under the diagnosis of SJS. He had fever up to 40.2°C which went up and down for 12 days without any evidence of infection. Systemic steroid was administered for 2 weeks. On the next day of the last steroid adminstration, the patient presented newly developed vesiculobullous lesions on both palms (Fig. 1). They were asymptomatic multiple clear vesicles and the biopsy specimen showed an intracorneal vesicle with hyperkeratosis and acanthosis. Mild lymphocytic infiltration without eosinophil in the papillary dermis was observed (Fig. 2A, B). He had no history of pompholyx. The vesicles resolved spontaneously in 2 weeks.

There are many reports about IVIG-induced pompholyx in patients with various neurologic diseases or SJS which were considered as an adverse effect of IVIG, one of the uncommon cutaneous reactions including urticaria, erythema multiforme, and morbiliform eruption. Although the mechanism of IVIG-induced vesiculobullous eruption has not been elucidated, higher dose and fast flow rate of IVIG might affect its development[3,4]. Lin et al.[5] reported a case of non-eczematous vesiculobullous eruption following SJS treated with IVIG. In previous reports, eczematous and non-eczematous vesicles resolved spontaneously, or with

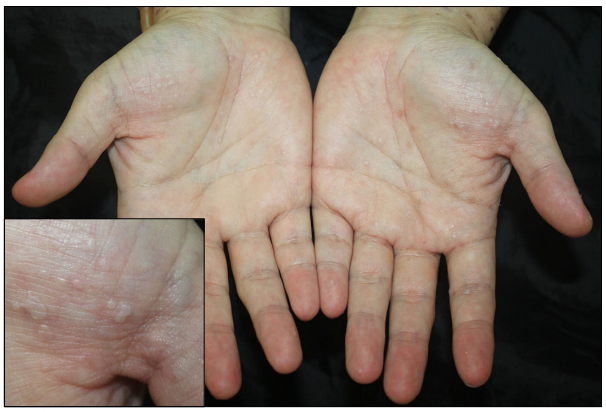

**Fig. 1.** Asymptomatic multiple clear vesicles on the palms.

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**Corresponding author:** Hyun Jeong Park, Department of Dermatology, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, 10 63-ro, Yeongdeungpo-gu, Seoul 150-713, Korea. Tel: 82-2-3779-1391, Fax: 82-2-783-7604, E-mail: hjpark@catholic.ac.kr

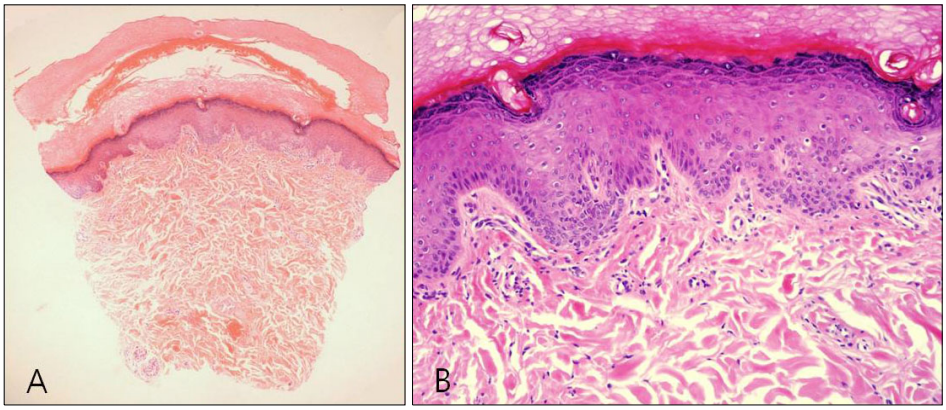


**Fig. 2.** (A, B) The biopsy specimen showed an intracorneal vesicle with hyperkeratosis and acanthosis with mild lymphocytic infiltration in the papillary dermis (H&E; A: ×40, B: ×200).

topical or systemic steroids in 3 or more weeks[3-5].

In this case, we started systemic steroid therapy for rapid clinical recovery, instead of IVIG. The vesicles on the palms appeared just after the steroid cessation and subsided spontaneously within 2 weeks. While histopathology of pompholyx demonstrates intraepidermal spongiotic vesicle with eosinophils and lymphocytes, the biopsy specimen of this case showed an intracorneal vesicle and only mild lymphocyte infiltration which is not consistent with pompholyx.

We assumed that the perspiration related to the fever and scales from the skin regeneration process aggregated to plug the sweat pores and create such lesions. It is a new opinion that the vesiculobullous eruption could be provoked by SJS itself at the end of the disease course, rather than by the adverse effect of IVIG. This case implies the possibility that the pathophysiological mechanism differs from the one that explains the development of transient pompholyx induced by IVIG, since the steroid, the major therapeutic drug of eczema, had been administered regularly until the day just before the vesicles appeared.

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