DOI: 10.1002/cia2.12045

LETTER TO THE EDITOR

WILEY Journal of Cutaneous Immunology and Allergy

A case of erythema multiforme major presenting with varicella-like manifestations

Dear Editor,

Erythema multiforme (EM) is typically triggered by exposure to medications or infectious pathogens, while in some cases, the etiology is not detectable.[1] The diagnosis could be difficult when the predisposing factor is unremarkable. Herein, we report a case of EM major with unclear origin, which resembled varicella in its initial presentation.

A 66-year-old man with hypertension, hyperlipidemia, and type 2 diabetes mellitus developed high fever at a level of 38.5°C and skin rashes, which were vesicles and papules surrounded by erythema on his whole body (Figure 1A). Two days of treatment with topical corticosteroids and oral antihistamines was not effective. There were no medications or supplements that were recently started. Physical examinations, bacteriological, serological, and imaging studies could not detect other signs of active infection.

He was diagnosed as having varicella and hospitalized in a negative pressure isolation room. Although acyclovir treatment was introduced, his high temperature was not improved and skin lesions had spread. On hospital day 5, the eruption of oral mucosa emerged, and each erythematous papule on his limbs and trunk was evolved into atypical target lesions (Figure 1B). On the same

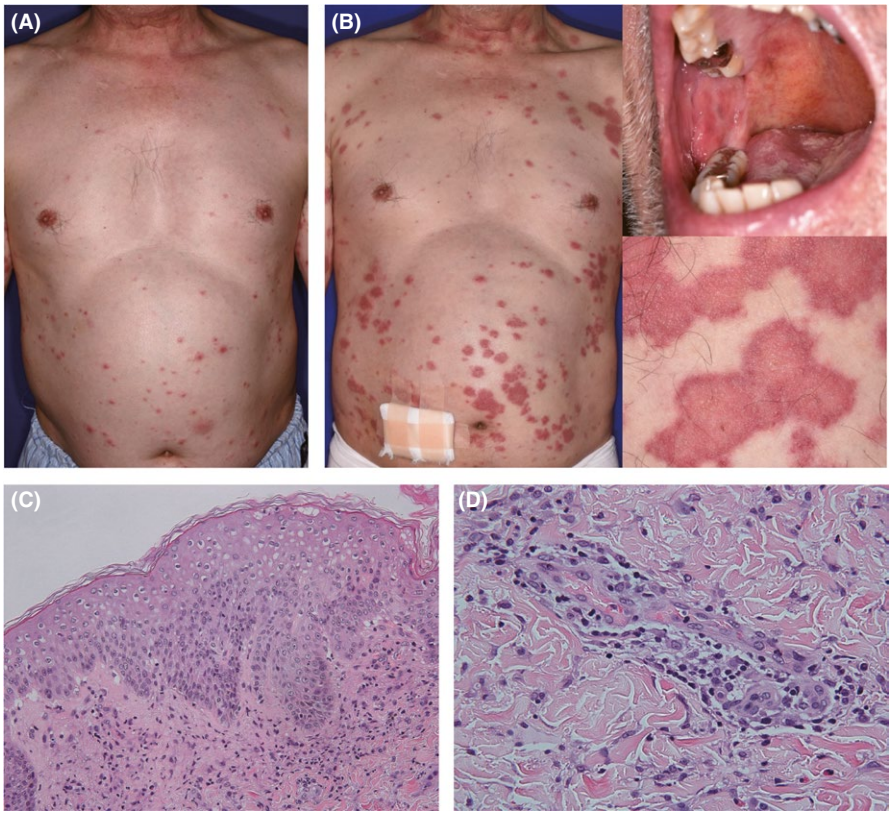

FIGURE 1 Clinical and histopathological features of the rash. A, Clinical image of the patient's trunk on hospital day 1. There are vesicles and papules surrounded by erythema on the trunk. B, Clinical images of the patient's trunk, oral cavity, and anterior side of his left thigh on hospital day 5. There are atypical target lesions on the limbs and the trunk. There is eruption of oral mucosa. C, Skin biopsy on hospital day 5 with hematoxylin and eosin staining (× 200). There is vacuolar degeneration. Epidermal necrosis was not obvious. D, Skin biopsy on hospital day 5 with hematoxylin and eosin staining (× 400). Inflammatory cells, mainly lymphocytes, are infiltrating around the small vessels

day, anti-varicella zoster virus (VZV) IgM measured on hospital day 1 turned out to be negative. Skin biopsy from the infiltrated erythema on his abdomen revealed interface dermatitis (Figure 1C) and perivascular lymphocytic dermatitis (Figure 1D), with no signs of epithelial necrosis.

Diagnosing his disease as EM major, we started oral prednisolone 35 mg/day (0.5 mg/kg/day) on hospital day 7, which dramatically improved his fever and rash. The dose of prednisolone was successfully tapered off. His rash has almost disappeared with slight hyperpigmentation.

Both EM and viral exanthems cause widespread and symmetrical eruptions accompanied by fever and malaise, which makes it difficult to distinguish them especially in their early stage. While a child case of Stevens-Johnson syndrome with vesicular lesions surrounded by erythema resembling the exanthems of varicella has already been reported,[2] this is the first English report of a case with EM major presenting with a varicella-like rash.

Early detection of patients with varicella is crucial because airborne infection precaution should be measured. Traditionally, Tzanck smear and immunofluorescence assay have been used for diagnosing varicella. Although they are simple and rapid, their sensitivity is insufficient from the viewpoint of infection control.[3,4] Polymerase chain reaction (PCR) assay is highly sensitive, but it is poorly accessible and takes time in most clinical settings. Other examinations such as serum anti-VZV IgM measurement or skin biopsy are not suitable for rapid clinical judgment.

Immunochromatography assay (ICGA) kit with high diagnostic value as PCR has been developed for other pathogenic viruses such as herpes simplex virus.[5] Since 2017, a novel ICGA kit for VZV detection (DermaQuick®, Maruho, Osaka, Japan) has been available in Japan, which can be performed within 15 minutes without any specialized technique or equipment. It may be helpful to rule out varicella in similar situations to our case. Evaluation of its utility in real clinical setting is warranted.

INFORMED CONSENT

Informed consent was obtained on a document from the subject patient.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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