Dermatology Practical & Conceptual

Unilateral Laterothoracic Exanthem in an Adult Following Recombinant Zoster Vaccination

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Introduction

Unilateral laterothoracic exanthem (ULE) is a self-limiting unilateral rash with a suspected viral etiology [1]. In children, it is often termed asymmetric periflexural exanthem of childhood (APEC). Herein, we present an adult case of ULE following recombinant zoster vaccination.

Case Presentation

A 57-year-old male presented with a red eruption on the right side of his trunk for 10 days, with mild pruritus but no other discomfort. He had received a recombinant herpes zoster vaccine in his upper right arm two weeks before rash onset. One day post-vaccination, he experienced myalgia and a fever of 38° C, both resolving spontaneously within five days. Subsequently, a rash rapidly developed and spread unilaterally to the right lateral trunk. Loratadine was taken but did not improve symptoms.

Physical examination revealed diffuse erythematous papules on his right lateral trunk, with no involvement of other body areas (Figure 1, A and B). Complete blood count, C-reactive protein, and erythrocyte sedimentation rate were within normal limits. Serological tests for COVID-19 and influenza were negative. The diagnosis of ULE was considered. The patient declined a skin biopsy. Remarkably, the lesions resolved within one week without further treatment. Considering the rash distribution, the vaccination history, and the self-limiting course, a diagnosis of ULE was established.

Conclusion

ULE typically presents with a unilateral erythematous rash originating near the axilla or groin and spread along the affected side [1]. In children aged 1–5 years, this condition is commonly referred to as APEC. ULE is generally self-limiting, with a typical duration of 3–6 weeks, and may be accompanied by pruritus or mild lymphadenopathy in about 50% of

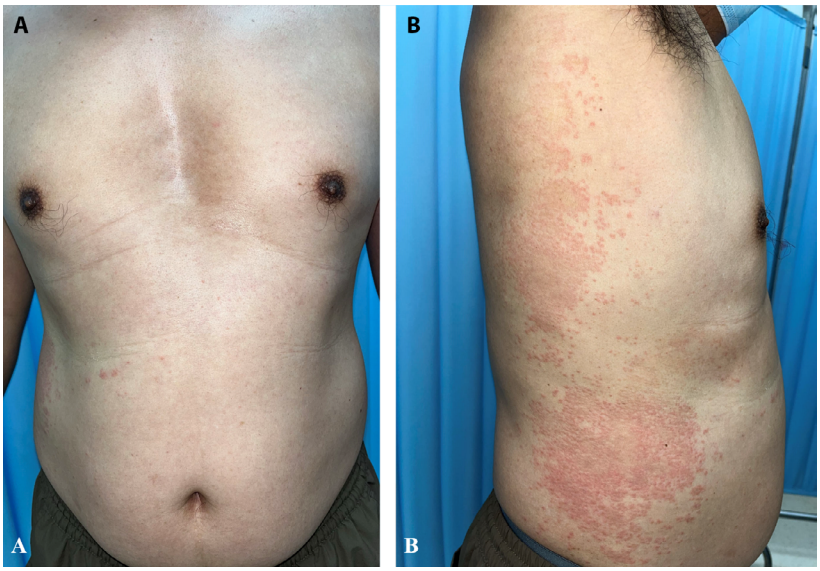

Figure 1. Clinical image showing multiple erythematous papules diffusely distributed over the right lateral trunk, with no involvement of the contralateral side or other regions.

cases [2]. Some may also develop dry skin, post-inflammatory hyperpigmentation, and other systemic symptoms, but these usually resolve quickly [2]. Although its etiology remains unclear, associations with viral infections and vaccinations, including COVID-19, have been reported [1,3]. In our case, the patient developed ULE ipsilateral to the recombinant herpes zoster vaccine injection site.

While previous reports have highlighted injection site reactions, and systemic symptoms as common adverse effects, the occurrence of a rash is rare [4]. The vaccine contains G-protein derived from varicella-zoster virus along with an adjuvant [5]. Most injection-site adverse reactions reported were associated with the adjuvant component [5]. Since the etiology of ULE in previous studies was linked to the viral component, the role of the G-protein in zoster vaccine remains unclear.

The diagnosis of ULE is primarily clinical, with laboratory tests typically within normal ranges. Skin biopsy is not required as histological changes are non-specific [2]. Notably, the unilateral distribution of the rash may complicate its association with vaccination or viral infections, potentially leading to misdiagnosis. The potential differential diagnoses include allergic contact dermatitis, superficial fungal infections, and granular parakeratosis [1,2]. Treatment is mainly symptomatic due to its self-limiting nature.

This case represents a report of adult ULE following recombinant herpes zoster vaccination. Clinicians should recognize ULE's distinct rash and potential triggers. As herpes zoster vaccination becomes more widespread, monitoring for adverse effects is essential.

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Ethics Statement and Informed Consent: This study was approved by the Ethics Committee Biomedical Research, West China Hospital of Sichuan University. We have received and archived written patient consent.

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