

CONTACT POINT

Zosteriform contact dermatitis mimicking herpes zoster

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CASE REPORT

A 53-year-old man without any known medical comorbidities presented to the emergency department with acute onset of painful vesicles and progressive swelling of his left face for 5 days (Figure 1). Physical examination revealed localized grouped vesicles on an erythematous base with eschar-like crusts on his left cheek (A). Significant left facial and eyelid swelling resulted in difficulty opening his left eye, but the patient reported no foreign body sensation or decreased visual acuity. Notably, there was sparing of the left preauricular region along the distribution of the left maxillary nerve

dermatome, and there were no disseminated lesions on other parts of the body.

Tzanck smear cytology from vesicles revealed no multinucleated giant cells. Slit-lamp examination demonstrated no irritant keratitis of the left eye. The patient reported that his symptoms began after exposure to bodily fluid secreted from lychee stink bug (Figure 2) while working at an organic vegetable farm. Zosteriform irritant contact dermatitis caused by lychee stink bug was diagnosed. The patient was treated with intravenous methylprednisolone (1.7 mg/kg/day prednisolone-equivalent) for 3 days and topical antibiotic, and his lesions gradually resolved after 2 weeks.



FIGURE 1 Significant left facial swelling with grouped vesicles on an erythematous base and eschar-like crust formation localized to the left cheek (A). There is incomplete involvement of left maxillary nerve dermatome with sparing of the left preauricular region (B)



FIGURE 2 The yellow-brown and shield-shaped lychee stink bug, also named *Tessaratoma papillosa*, is a major pest of lychee trees in Asia

DISCUSSION

Irritant contact dermatitis is characterized by direct injury to the epidermal cells of the skin by external stimuli, resulting in activation of the innate immune system and an inflammatory response.¹ Common irritants include cosmetics, detergents, animal products, solvents, and chemical irritants, which can cause severe acute pain and burning sensation with vesiculobullous lesions, ulcers, and trauma-like burns.

Lychee stink bug, named *Tessaratoma papillosa*, is a member of the Tessaratomidae family, and is native to Southeast Asia, India, and some southern provinces of China.² Recently, the lychee stink bug became an invasive pest in Taiwan. The host plants of lychee stink bug are primarily fruit trees such as lychee (*Litchi chinensis* Sonn.) and longan (*Dimocarpus longan* Lour.).³ The adults are often 24–28 mm long and 15–17 mm wide, have a shield-like appearance, and are brown to yellow in color.⁴ When disturbed, these bugs can release corrosive fluid as a defense mechanism, causing burn injury to animals and plants. The chemical products of *T. papillosa* originate from the thorax glands, and consist mainly of alkanes, alkenes, and alcohol.⁵ Acute reactions present with stinging red plaques and vesicles immediately after exposure to the corrosive fluids. Severe cases can result in marked epidermal necrolysis and desquamation. Differential diagnoses include herpes zoster, cellulitis, bullous impetigo, photoallergic dermatitis, and eczema. The focal, zosteriform distribution on the left cheek can mimic herpes zoster. However, careful physical examination identifying incomplete involvement of the left maxillary nerve

dermatome, absence of herpes zoster ophthalmicus, and Tzanck smear cytology that is negative for multinucleated giant cells can help clinicians rule out the diagnosis of herpes zoster.

Initial acute management of irritant contact dermatitis caused by lychee stink bug involves using a large amount of normal saline to wash off corrosive fluids at the time of contact. The mainstay of medical treatment includes topical corticosteroids, topical antibiotics, and oral antihistamines if pruritus is noted.¹ If the lesions are resistant to initial treatment, systemic corticosteroid with methylprednisolone (1–2 mg/kg/day) can be considered. Prevention measures against *T. papillosa* include the use of pesticides, natural enemies, and physical removal of eggs when noted.³ If the bug is observed climbing onto the skin, gentle and careful removal can prevent the insect from releasing toxic fluids.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

AUTHOR CONTRIBUTIONS

Lai-Ying Lu: Project administration; data curation; writing - original draft. Hsi Yen: Conceptualization; visualization; writing - review and editing. Wei-Ti Chen: Conceptualization; project administration; supervision; writing - review and editing.

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