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Letter to Editor

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Unilateral laterothoracic exanthem masquerading as herpes zoster in a COVID−19 positive adult male: A rare presentation

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Dear editor,

Unilateral laterothoracic exanthem (ULE), also called superimposed lateralized exanthema or asymmetric periflexural exanthem of childhood, is mostly seen in children aged between 1-5 years[1]. It is often preceded by a respiratory or gastrointestinal symptom. The eruption is usually unilateral, spreading centrifugally, which may present as maculopapular, eczematous or scarlatiniform lesions[2,3]. The proposed etiologies include viral infections such as adenovirus, parvovirus, Epstein-Barr virus and most recently, the SARS-CoV-19 virus[4,5]. This entity is quite rare in adults. Herein we present a case of ULE in a COVID-19 positive adult male. The condition is mostly self-limiting and requires symptomatic management.

An informed consent was obtained from the patient. A 22-year-old male presented with a history of fever and cough for 5 d followed by a sudden eruption of rash in the axilla which was followed by a similar eruption in the left supraclavicular region 1 d after the initial lesions, associated with itching. The lesions were maculopapular with excoriations, and then spread to the trunk and abdomen on the left side.

There was no history of pain or burning sensation associated with the lesions. The patient reported no recent sexual contact. He was a non-smoker and non-alcoholic. There was no significant past history or family history.

On examination, multiple erythematous excoriated macules and papules, discrete in distribution were found on the left axilla, trunk, abdomen and supraclavicular region of the neck (Figure 1). Lesions were non-tender. The right side of the body was spared. No involvement of the palms, soles or mucous membranes was seen. Hair and nail examination revealed no abnormalities.

Laboratory studies including complete blood count with a peripheral blood film, liver function tests, renal function tests, and lipid profile were unremarkable. The patient was later found positive on the COVID-19 RT-PCR test and was home-isolated. Tzanck smear was negative. A biopsy was advised but the patient refused to receive the procedure.

Clinically, ULE presents as a unilateral exanthema which usually starts near or at the axillary region and spreads in a centrifugal pattern to the trunk and the medial surface of the arm. The rash may also involve the ipsilateral groin or leg. In our case, the rash was also present at the supraclavicular region of the same side[3].

In children, ULE has been associated with viral infections. The disease shows seasonal occurrence *i.e.*, in late winter and early spring, and also when the frequency of upper respiratory tract prodromes is higher. Parvovirus B19, parainfluenza virus, adenovirus and most recently SARS-CoV-2 virus, as in our patient, have been inconsistently reported in association with this peculiar exanthema[4,5].

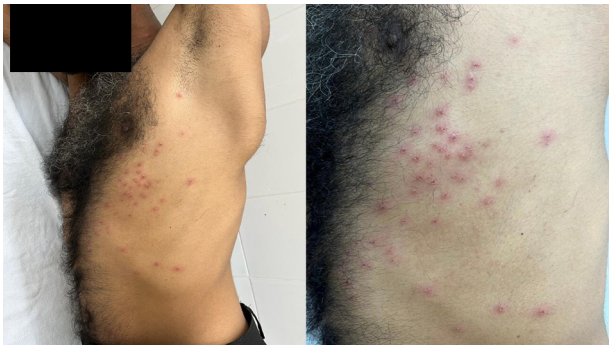

Figure 1. Multiple, erythematous, excoriated maculopapular lesions present unilaterally over the left side of the chest and trunk.

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A new concept that a postzygotic mutation renders the keratinocytes on one side of the body more responsive to infectious agents, has been most recently proposed in certain pieces of literature. The eruption can sometimes appear on the contralateral side but a visible asymmetry is maintained. This asymmetry reflects less pronounced reactivity of epidermal cells that do not carry the postzygotic mutation to develop an inflammatory rash[6].

Differential diagnosis includes nonspecific viral rashes, exanthematous drug eruption, contact dermatitis, *etc*. Since the diagnosis is mainly clinical, lab investigations and skin biopsies are often not required. Histological examination, when performed, shows nonspecific features, such as perivascular lymphocytic infiltrate and lichenoid dermatitis.

To conclude, a differential diagnosis of ULE should be kept in mind while dealing with such presentation of an asymmetrical rash. In addition, knowing the self-limiting course of this disease, physicians should reassure the patient and avoid unnecessary investigations.

Conflict of interest statement

The authors report no conflict of interest.

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Authors' contributions

All authors contributed equally to the writing of this article.

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