Unilateral Mediothoracic Exanthem: A Variant of Unilateral Laterothoracic Exanthem

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We report the cases of a 4-year-old Chinese boy and a 33-year-old Chinese man with prodromal constitutional symptoms followed by eruption of small, painless, erythematous, papular lesions on relatively medial aspects of the anterior chest but not as far as the periflexural regions. Spontaneous remission was seen 2 and 3 weeks after rash onset in the child and the adult, respectively. We believe that the terms unilateral mediothoracic exanthem *and* unilateral thoracic exanthem *are appropriate diagnostic labels. Such labels carry clinical significance as the patients can be reassured that although the rash may persist for weeks, final spontaneous remission with no complication is highly likely. Moreover, the risk of contagiousness is low, and we did not insist on isolation for prolonged periods.*
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Unilateral laterothoracic exanthem (ULE) is being reported more frequently in both children and adults. Initially, small papular lesions typically erupt unilaterally on axillary or groin regions. The rash may then become generalized. There is spontaneous resolution within weeks of onset.

We report the cases of 2 Chinese patients with eruptions for which we believe *unilateral mediothoracic exanthem* or *unilateral thoracic exanthem* would be appropriate diagnostic labels.

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Case Reports

Patient 1—A boy aged 4 years 9 months was referred to us for sudden appearance of a rash on his right chest. The rash was itchy but not painful. He had had fever, coryzal symptoms, and loss of appetite 4 days before rash onset. The patient had been examined by his family physician and prescribed oral chlorpheniramine maleate and oral acetaminophen. The child had taken these medications in the past with no history of drug allergy. No other systemic or topical medication, including herbal remedies, had been administered in the weeks preceding the eruption. His medical history was unremarkable.

Results of a physical examination revealed an afebrile, healthy, and playful boy. Small, erythematous, papular, and papulovesicular lesions were seen inferior to the right nipple, extending horizontally in a dermatomelike distribution but not reaching the periflexural region (Figure 1A). Lesions were noted at different stages of development (Figure 1B). The patient's throat was erythematous with visible vesicles; the tonsils were not swollen. There was no palatal petechiae, lymphadenopathy, or hepatosplenomegaly.

Results of a complete blood count were within reference range. Serologic tests were negative for immunoglobulin M against *Parvovirus* B19, and results of polymerase chain reaction on the acute whole blood specimen were negative for *Parvovirus* B19 DNA.

We prescribed topical calamine lotion. Complete and spontaneous remission with no residual scarring or hyperpigmentation was seen 2 weeks after the rash's onset.

Patient 2—A 33-year-old man consulted us for a sudden eruption of a rash on his chest. The rash was not painful or pruritic. The patient had experienced headache, malaise, and muscle pains 2 days before rash onset. He had not consulted other medical practitioners nor had he taken or applied any medications in the weeks prior to the rash onset. The patient's medical history was unremarkable.

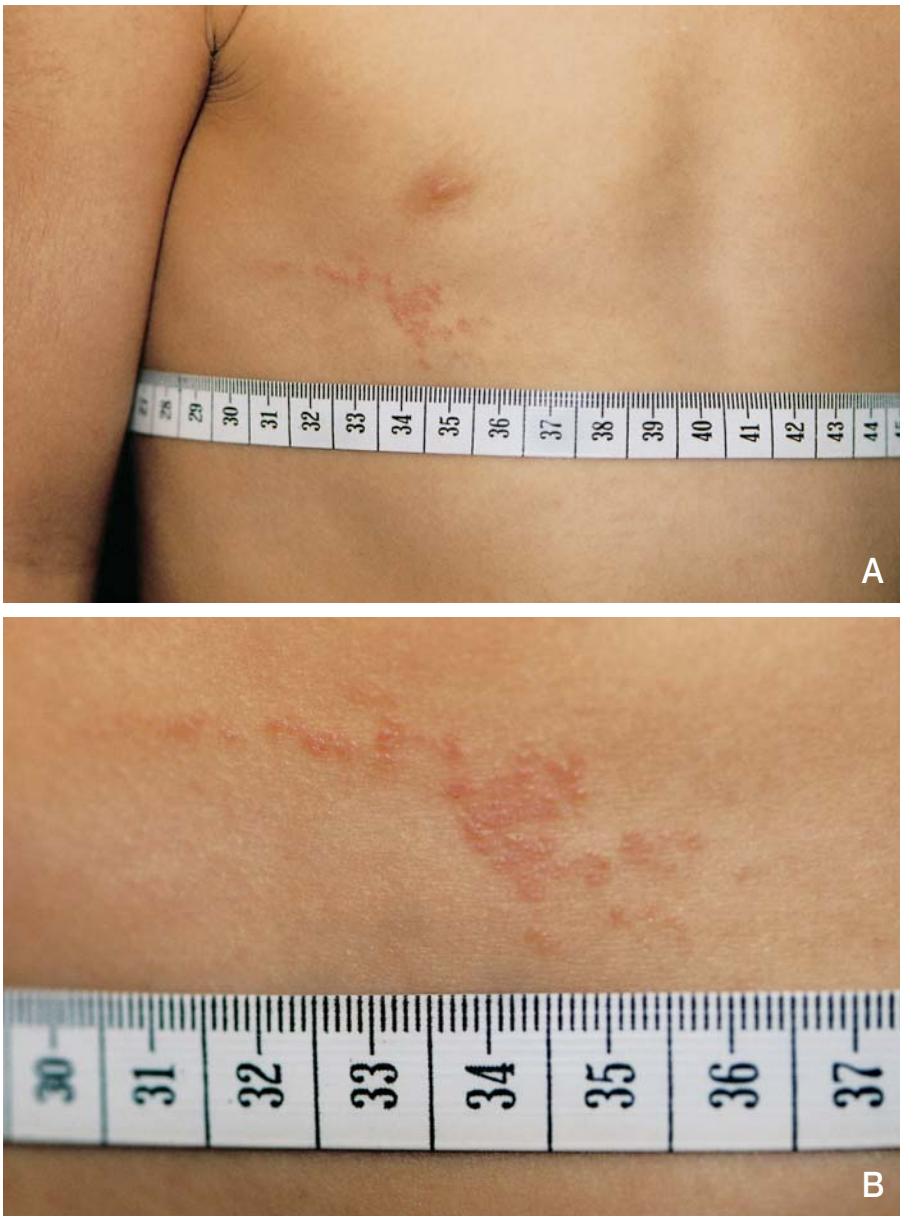

Figure 1. Small, painless, erythematous, papular and papulovesicular lesions on right anterior chest of a 4-year-old boy. The lesions do not extend to the periflexural region (A). The lesions were in different stages of development (B).

Results of a physical examination revealed an afebrile man with small papular lesions on the right medial aspect of his anterior chest (Figure 2). Other skin areas, including palmoplantar surfaces, were unaffected. The throat was inflamed, and the tonsils were not swollen. No cervical or axillary lymphadenopathy or hepatosplenomegaly was noted.

Results of a complete blood count were within reference range, and test results for syphilis were negative. Serologic test results were negative for immunoglobulin M against *Parvovirus* B19, and results of polymerase chain reaction on the acute whole blood specimen were negative for *Parvovirus* B19 DNA.

Because the lesions were not pruritic, we did not prescribe medications. Spontaneous remission with minimal postinflammatory hyperpigmentation was seen 3 weeks after the initial rash onset.

Comment

ULE was first reported by Bodemer and de Prost[1] in 1992, and Taieb et al[2] reported a study of children with similar eruptions in 1993. A characteristic feature of ULE is an initial unilateral eruption of small papular lesions in axillary or groin regions, though the rash might then spread centrifugally to involve the face, genitalia, hands, or feet. The reported prodromal symptoms include

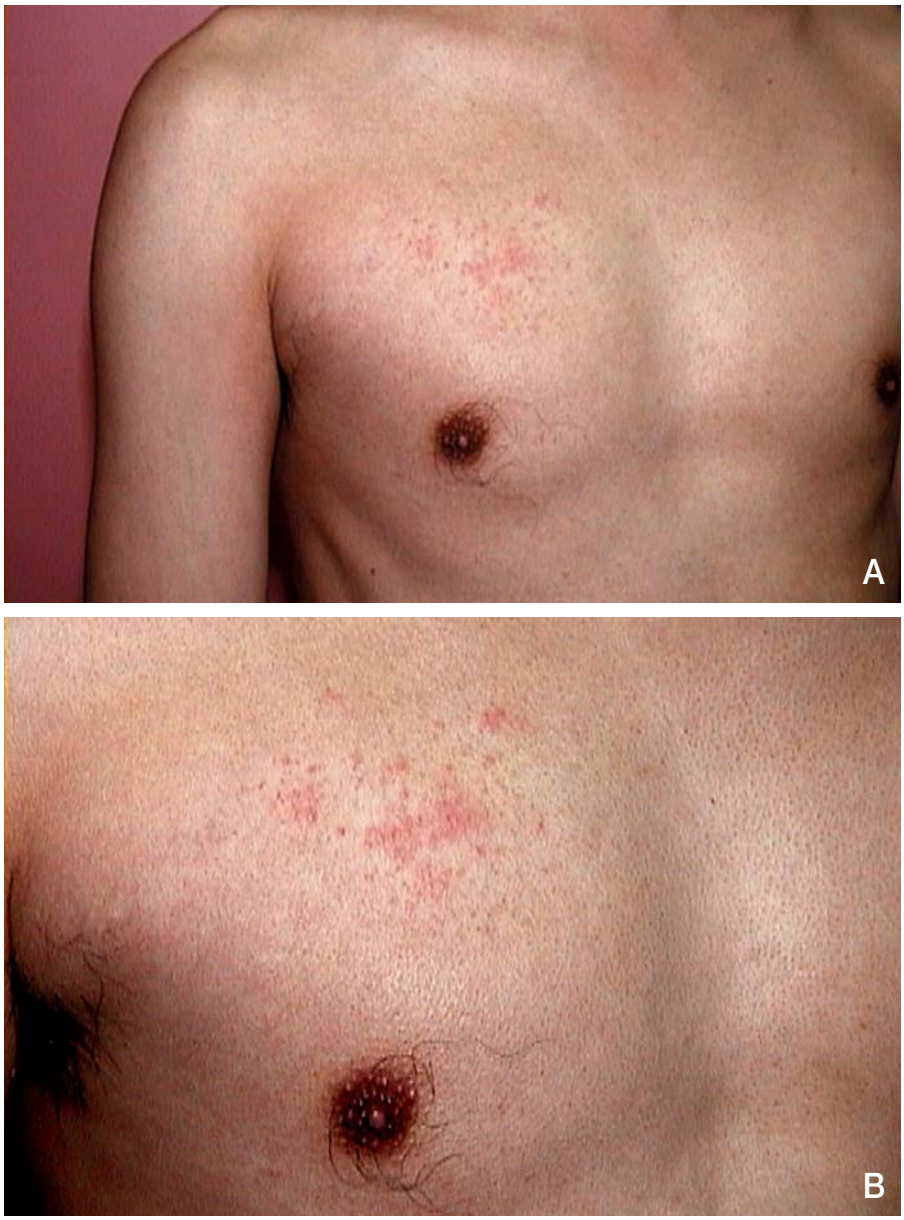

Figure 2. Small, painless, papular lesions on right medial aspect of anterior chest of a 33-year-old man (A and B).

fever, sore throat, fever, chills, and gastrointestinal disturbances. After a mean duration of 5 weeks, the rash resolves spontaneously.[3] Although the initial reported cases were in children, ULEs are increasingly being reported in adults,[4,5] including a 55-year-old man.[6]

Our 2 patients exhibited a rash for which a viral etiology was highly likely. The prodromal constitutional symptoms, the subsequent rash eruption, and the spontaneous remission are all characteristic of a viral exanthem. Based on the patients' histories, we presumed that a drug rash was highly unlikely. One limitation to the diagnostic process was that lesional biopsies were not performed in either patient. In addition, paired acute and convalescent sera were not available for parallel serologic testing for viral titers.

The most striking feature in both our patients was the unilateral rash distribution. Initially, we designated the rashes as ULE. However, the rash was not adjacent to the periflexural regions, and we were not convinced that ULE was a valid description. Moreover, the dermatomelike distribution of the inflammation in these 2 patients was quite different from the progressive spreading that is characteristic of ULE. Because the rash was more medial and strictly unilateral, we believe that the term *unilateral mediothoracic exanthem* would be an

appropriate diagnostic label for these 2 cases. Alternatively, the term *unilateral thoracic exanthem* is suggested to embrace both ULE and unilateral mediothoracic exanthem.

The cause of ULE is unknown. In a study of 187 children with ULE, virologic investigations were performed for 34 subjects[7]; evidence of active viral infection was found in only 6 patients. Of these 6 children, 2 had para *Influenzavirus* type 2 infection, 2 had para *Influenzavirus* type 3 infection, and 2 had adenovirus infection. In another study, an adult patient with ULE was reported to have evidence of *Parvovirus* B19 infection.[8] Neither of our patients had evidence of *Parvovirus* B19 infection. Unfortunately, our patients declined lesional biopsies for further study, and the specimens were inadequate for further virologic investigation.

A diagnosis of unilateral mediothoracic exanthem or unilateral thoracic exanthem carries much clinical significance. The use of such a diagnostic label may help avoid unnecessary treatments. The rash is likely to persist for several weeks and may affect schooling or work attendance because of fear that the rash is contagious. Because clustering of ULE patients had not been reported, we explained to the parents of patient 1 and to patient 2 that it was unlikely that rash was contagious and that home isolation for weeks was unnecessary. We also offered reassurance that scarring was highly unlikely and that the risk of complications was low.

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