

Case studies

Unilateral mediothoracic exanthem – Report of the third patient in the literature

Abstract

Background: We have previously described two patients with a paraviral exanthem known as *unilateral mediothoracic exanthem*, which we believe to be intimately related to asymmetric periflexural exanthem and/or unilateral laterothoracic exanthem.

Presentation of case: A 20-year-old male presented with an erythematous belt of erythema and papules on the left anterior aspect of the thoracic cage. The lesions jumped across the dermatomes from T4/T5 laterally to T6 medially, and stopped abruptly at the midline. Vesicles were not seen for the entire course of the eruption. Lesional histopathology revealed perisudoral lymphocytic infiltrates, which is a characteristic, though not pathognomonic, feature of asymmetric periflexural exanthem / unilateral laterothoracic exanthem. Complete rash remission was noted in two weeks.

Conclusion: The rash distribution and the lesional histopathological changes are compatible with unilateral mediothoracic exanthem, a variant of two paraviral exanthems. This is the third reported patient with unilateral mediothoracic exanthem.

Keywords: asymmetric periflexural exanthem, Gianotti-Crosti syndrome, paraviral exanthem, pityriasis rosea, unilateral laterothoracic exanthem, viral exanthem

23 **Introduction**

24 We have previously reported a boy aged four years nine months and a 33-year-old
25 man with a novel exanthem.¹ The prodromal symptoms, sudden onset of crops of fine
26 papular lesions on the thoracic cages and being strictly unilateral, and the spontaneous
27 remission within three weeks led us to believe that the aetiology was a viral infection.
28 We termed the rash *unilateral mediot thoracic exanthem* (UME).¹ We present here the
29 third reported patient with UME.

30 **Presentation of case**

31 A 20-year-old male consulted us for a slightly pruritic rash on his chest. The lesions
32 erupted in crops. He endured coryzal symptoms with fatigue one week before rash
33 onset. His past health was excellent. Drug history was unremarkable.

34 Examination revealed a belt of erythematous small papules on the left anterior aspect
35 of his thoracic age. The rash jumped across dermatomes from T4/T5 laterally to T6
36 medially, stopped abruptly at the midline, faded at the lateral aspect of his thoracic
37 cage, and became unrecognizable on the back (Fig. 1a and 1b). Vesicles were not
38 noted for the entire course of the eruption. Other skin surfaces and mucosal regions
39 were unaffected.

40 His complete blood picture, fasting glucose, liver and renal function tests were normal.
41 Antistreptolysin-O titre was not elevated. HIV antibodies were negative. Lesional
42 histopathology revealed acanthosis and perivascular infiltrates (Fig. 2a).

43 Parakeratosis was seen (not shown in the figures). Perisudoral lymphocytic infiltrates
44 were present (Fig. 2b).

45 Based on the rash distribution, we believe that UME was the most appropriate
46 diagnostic label. We prescribed no systemic or topical medications. Follow-up two
47 weeks later revealed almost complete rash remission.

48 **Discussion**

49 Asymmetric periflexural exanthem (APE) / unilateral laterothoracic exanthem (ULS)
50 was first described by Brunner MJ *et al* in 1962.² Brunner MJ *et al* coined no name
51 for this novel exanthem then. Bodemer C and de Prost Y subsequently reported a
52 very similar rash in 1992, for which they termed ULE.³ Brunner MJ wrote to
53 Bodemer C, informing her that he had published a similar rash in 1962. Both agreed
54 that it was the same rash (Bodemer C, personal communication).

55 One year later, patients with similar rashes were reported by Taïeb A *et al*, who
56 termed such as APE.⁴ They believed that the distribution of the rash would be more
57 delineated by the word *periflexural*. Drago F *et al* recommended *superimposed*
58 *lateralized exanthem* as the terminology.⁵

59 We set aside much time to identify the most appropriate diagnostic label for this
60 patient. Our major differential diagnoses included herpes zoster, atypical pityriasis

61 rosea, atypical Gianotti-Crosti syndrome, APE/ULE, irritant and allergic contact
62 dermatitis, drug-related rashes, and non-specific viral rashes.

63 Although the distribution of the rash was akin to a dermatome, herpes zoster was
64 unlikely as there had been no vesicles throughout the course of the disease. Moreover,
65 the rash was not painful. The patient had no history of chickenpox. Atypical
66 pityriasis rosea and atypical Gianotti-Crosti syndrome were unlikely.^{6,7} Irritant and
67 allergy contact dermatitis were unlikely as we had taken a detailed history to assess
68 for potential irritants or allergens. Moreover, the rash distribution did not conform to
69 specific areas of exposure to irritants or allergens. Our history excluded medications,
70 including over-the-counter topical or systemic drugs, and topical and systemic
71 remedies.

72 The lesional histopathological changes were compatible with a viral exanthem. The
73 perisudoral interface lymphocytic infiltrates were reported to be fairly specific in
74 APE/ULE.⁸

75 Restraints in resources did not allow us to proceed to virological investigations such
76 as PCR, virus load, serologies, and lesional specimen for immunohistochemical
77 staining. This is a limitation in this report. A definite virological aetiology is thus not
78 established.

79 Laboratory-based investigations also did not pinpoint a definite virus for our report on
80 the first two patients with UME.⁷ UME might, like pityriasis rosea, Gianotti-Crosti

81 syndrome, asymmetric periflexural exanthem, papular-purpuric gloves and socks
82 syndrome, eruptive pseudoangiomatosis, and eruption hypomelanosis, be a group of
83 diseases known as *paraviral eruptions*,^{9,10} meaning the one single definite virological
84 cause has not been firmly established for these exanthems.

85 We hope that other investigators would report other patients with UME, and study the
86 epidemiology, infectivity, and potential complications for this new variant of paraviral
87 exanthems.

88 **Conclusion**

89 We presented the clinical and lesional histopathological features of a 20-year-old
90 male with a paraviral exanthem compatible with UME. We believe that this rash is
91 intimately associated with APE/ULE. This is the third reported patient with UME in
92 the literature.

93

94 **References**

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- 121

122 **Figures**

Figure 1a



Figure 1b



Figure 2a

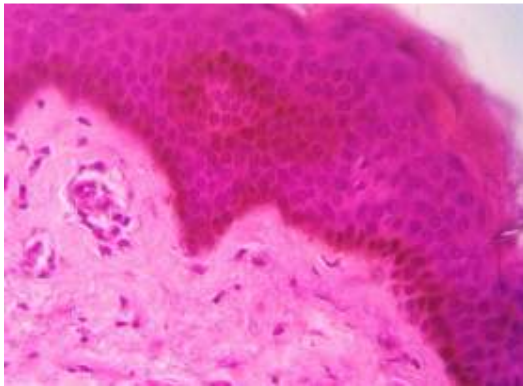


Figure 2b

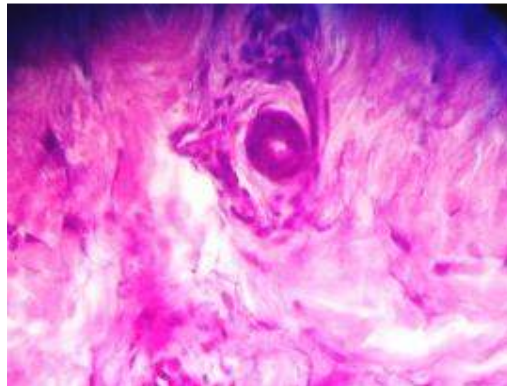


Figure 2a Lesional histopathology reveals acanthosis and perivascular lymphocytic infiltrates. (Hematoxylin and eosin, 300X)

Figure 2b

Perisudoral lymphocytic infiltrates are seen, which is a characteristic, though not pathognomonic, feature of asymmetric periflexural exanthem/unilateral laterothoracic exanthem. Unilateral mediothoracic exanthem is therefore likely to be a variant of these two exanthems. (Hematoxylin and eosin, 300X)