

Case studies

1

2 Unilateral mediothoracic exanthem – Report of the third patient in 3 the literature

4 Abstract

5 A 20-year-old male presented with an erythematous belt of erythema and papules on
6 the left anterior aspect of the thoracic cage. The lesions jumped across the
7 dermatomes from T4/T5 laterally to T6 medially, and stopped abruptly at the midline.

8 Lesional histopathology revealed perisudoral lymphocytic infiltrates, which is
9 characteristic, though not pathognomonic, features of asymmetric perilesional
10 exanthem / unilateral laterothoracic exanthem. The rash distribution is compatible
11 with unilateral mediothoracic exanthem, a variant of these two paraviral exanthems.
12 Complete rash remission was noted in two weeks. This is the third reported patient
13 with unilateral mediothoracic exanthem.

14 Keywords: asymmetric perilesional exanthem, Gianotti-Crosti
15 syndrome, paraviral exanthem, pityriasis rosea,
16 unilateral laterothoracic exanthem, viral exanthem

17

18 **Introduction**

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

25 **Presentation of case**

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

29 Examination revealed a belt of erythematous small papules on the left anterior aspect
30 of his thoracic age. The rash jumped across dermatomes from T4/T5 laterally to T6
31 medially, stopped abruptly at the midline, faded at the lateral aspect of his thoracic
32 cage, and became unrecognizable on the back (Fig. 1a and 1b). Other skin surfaces
33 and mucosal regions were unaffected.

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

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

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

42 **Discussion**

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

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

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

55 rosea (PR), atypical GCS, APE/ULE, irritant and allergic contact dermatitis, drug-
56 related rashes, and non-specific viral rashes.

57 Although the distribution of the rash was akin to a dermatome, herpes zoster was
58 unlikely as there had be no vesicles throughout the course of the disease. Moreover,
59 the rash was not painful. The patient had no history of chickenpox. Atypical PR and
60 atypical GCS were unlikely.^{6,7} Irritant and allergy contact dermatitis were unlikely as
61 we had taken a detailed history to assess for potential irritants or allergens. Moreover,
62 the rash distribution did not conform to specific areas of exposure to irritants or
63 allergens. Our history excluded medications, including over-the-counter topical or
64 systemic drugs, and topical and systemic remedies.

65 The lesional histopathological changes were compatible with a viral exanthem. The
66 perisudoral interface lymphocytic infiltrates was reported to be fairly specific in
67 APE/ULE.⁸

68 Restraints in resources did not allow us to proceed to virological investigations such
69 as PCR, virus load, serologies, and lesional specimen for immunohistochemical
70 staining. This is a limitation in this report.

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

74 **References**

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94 **Figures**

Figure 1a



Figure 1b



Figure 2a

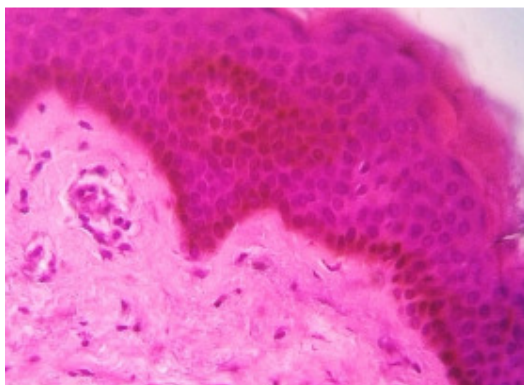
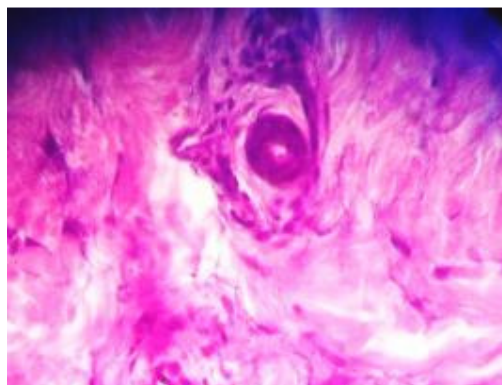


Figure 2b



96 **Figure captions**

Figures 1a and 1b An erythematous belt of small papular lesions across the left side of the anterior chest wall. The distribution is not dermatomal as the lateral lesions belong to T4/T5, while the medial lesions are at T6. The lesions stop abruptly at the midline. This characteristic is very compatible with our previously reported patients with unilateral mediothoracic exanthem.

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)