



Case Report

Asymmetric periflexural exanthem: A report in an adult patient

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ABSTRACT

Asymmetric periflexural exanthem (APE) is a distinctive exanthem, probably viral in origin. It is largely a disease of childhood and is uncommon in adults. We report an adult man presenting with the typical clinical findings of APE.

KEY WORDS: Asymmetric periflexural exanthem, Adult patient, Unilateral laterothoracic exanthem

INTRODUCTION

Asymmetric periflexural exanthem (APE) of childhood is a clinical syndrome characterized by the acute onset of a unilateral maculopapular, scarlatiniform or eczematous eruption initially involving the axillae and/or groins and later progressing to the trunk and extremities. The rash may be pruritic and often spreads centrifugally. It may become bilateral in the late course of the disease. There is usually a prodrome involving the gastrointestinal or respiratory system preceding the exanthem, often with low-grade fever. However, the general health of the child remains undisturbed. There is regional lymphadenopathy usually confined to the areas of initial eruption. There is spontaneous resolution in about 3-6 weeks and without a tendency to relapse. There is no obvious triggering or precipitating factor.¹⁻³

APEC typically occurs in the children of the age group between 1-4 years, with the peak incidence at two

years. There is a female preponderance and a seasonal predilection from February to September, with the peak incidence in the month of September.¹⁻³

The cause for the preferential unilateral and asymmetric anatomical affection by the rash is unexplained, though clinically very characteristic. The term asymmetric periflexural exanthem of childhood (APEC) was coined by Taeib et al⁴ to represent similar exanthems which were initially described under the different headings of "new papular exanthema of childhood"⁵ and "unilateral laterothoracic exanthema of children".^{6,7}

CASE REPORT

A 25-year-old unmarried man presented with a sudden onset of a mildly pruritic eruption around the left axilla of 3 days' duration, which rapidly progressed to involve other areas including the back and thighs. There was a history of coryza, cough and fever 15 days earlier which subsided within 3 days. He had received paracetamol,

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doxycycline and cetirizine from his family practitioner during these three days. These medications had been earlier used by him and there was no history of drug hypersensitivity.

There was no history of sexual contact. There was neither a history of contact with chemicals at work nor was there a history of using topical applications. The past and family health of the patient was good. He was a non-smoker and a non-alcoholic. No other family member suffered from a similar rash.



Figure 1: Multiple, discrete and conglomerated erythematous papules around left axilla



Figure 2: Asymmetric involvement of the flexor aspect of the arms. Please note that there is sparing of left arm

On examination, there were multiple, discrete erythematous papules, coalescent at places around the left axilla (Figure 1). The infra-axillary, infra-mammary and infra-scapular areas of the left hemi-thorax were also involved. The flexor aspect of the right arm showed a few discrete erythematous papules. There was notable sparing of the left arm's flexor aspect (Figure 2). The left popliteal fossa showed a few tiny, erythematous, blanchable macules and papules and the same area on the right side was spared (Figure 3). Four days later, the lesions became more diffuse and bilateral on the back and the lateral aspects of thighs. However, the rash was more profuse on the left side. There was firm, non-tender left axillary lymphadenopathy. The general and systemic examinations were normal.

On investigation, his hemoglobin was 10.9 g%, total leukocyte count 7200, ESR 15 mm 1st hr, and the urinalysis, blood sugar and ASO titre were normal. IgG and IgM antibodies against herpes simplex viruses 1 and 2, VDRL test and ELISA for HIV antibody were negative. Antibodies to parvovirus B19 were not done due to lack of resources. Scrapings for fungus and scabies mite were unfruitful.

A skin biopsy revealed epidermal spongiosis and a perivascular mononuclear infiltrate. There was no



Figure 3: Unilateral involvement of (left) popliteal fossa



lichenoid or perisudoral infiltration.

He was reassured and prescribed antihistamine tablets for itching as and when required along with a topical emollient cream (which the patient did not apply) and was kept under observation. After one week, the lesions began to fade. All the lesions cleared within three weeks with minimal post-inflammatory hyperpigmentation.

DISCUSSION

The etiology of APEC has remained a mystery, although it has been suggested that it might be an inoculation disorder of viral etiology.^{1,3} The viruses that have been implicated are parainfluenza 2 and 3, adenovirus and parvovirus B19.⁷⁻⁹ However, Coustou et al in a well-organized microbiological case-control study were not able to point to a specific virus or a bacterium.³ Interhuman transmission was not clearly documented.

There was some initial doubt whether APE was the correct diagnosis in this patient since the clinical pattern is characteristically seen in children but not in adults. The differential diagnoses of erythema multiforme, contact dermatitis, drug eruption, papular pityriasis rosea, scabies, secondary syphilis, miliaria, evolving herpes zoster, and Gianotti-Crosti syndrome looked quite unlikely in our case. The normal general and systemic examinations, marginal lymphocytosis and complete resolution within three weeks further supported the likelihood of viral etiology in our patient, most likely being APE.

Due to limitations in infrastructure, we could not investigate him for the complete virological profile in order to identify the possible etiological agent. The histopathological features of skin biopsy in our case showed non-specific changes and the "perisudoral infiltration of lymphocytes" which is typical of APEC was absent.¹

APE is quite frequent in France and Italy compared to other geographical areas.^{1,3} Most reported cases have been children but there are some reports of adults being affected.⁹⁻¹¹ Reports of APE, even in children, are lacking in the Indian literature possibly because the disease is

rare in India, the diagnosis is being missed or due to under-reporting by clinicians.

The importance of early recognition of this exanthem is that it would prevent the exhaustive investigative work-up that is routinely performed to establish the diagnosis in atypical rashes. Also, accurate diagnosis helps allay the patient's anxiety since the clinician can reassure the patient that complications are least likely and that association with serious systemic disease is indeed an exception rather than the rule.

To the best of our knowledge, this is the first case in an adult being reported in the Indian literature. The case is being reported here for its rarity in our population.

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Zawar VP: Asymmetric periflexural exanthema

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