

Lichen Planus in Childhood Showing Various Cutaneous Features

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Lichen planus (LP) in childhood is less common than in adulthood, with cases in individuals under 14 years of age estimated to account for no more than 10% of cases of LP (1). We describe here a child with LP who showed various cutaneous presentations.

CASE REPORT

A 5-year-old boy presented with papules on his right leg lasting for 6 months, which had gradually progressed to his trunk and extremities. He had a history of cytomegalovirus (CMV) hepatitis. His general condition was good and he was not taking any medications. On physical examination, keratotic papules and plaques with a peachblow-colour were observed on his legs. On the right leg, the papules were arranged linearly (Fig. 1a). On the dorsum of the right foot, hyperkeratosis and hypertrophy of the eruptions was conspicuous, showing a verrucous appearance (Fig. 1b). Miliary, lustrous eruptions were scattered on his abdomen, most of which were folliculo-centred (Fig. 1c). The oral mucosae and nails were normal.

Blood tests showed a small number of atypical lymphocytes (1% of 5,200/mm³ white blood cells (WBC)) and liver dysfunction (aspartate transaminase (AST) 99 IU/l, alanine transaminase (ALT) 80 IU/l). Cytomegalovirus-immunoglobulin G (CMV-IgG) and antibodies for Epstein-Barr (EB) virus (EB nuclear antigen (EBNA)-IgG and viral capsid antigen (VCA)-IgG) were positive, although CMV-IgM and VCA-IgM were

negative. Antibodies for the hepatitis B virus (HBV) and the hepatitis C virus (HCV) were negative.

Histopathological examination of a skin biopsy specimen taken from a verrucous papule on the dorsum of the right foot showed epidermal ortho-hyperkeratosis, wedge-shaped hypergranulosis, serrated change in the epidermal rete ridge, and band-like infiltration of lymphocytes in the superficial dermis. In addition to above-mentioned features, a skin biopsy specimen taken from a papule on the abdomen showed marked vacuolar degeneration of the epidermis and many Civatte bodies.

DISCUSSION

This case presented various clinical phenotypes of LP, including linear LP, hypertrophic LP and follicular LP. Linear LP and hypertrophic LP each has been reported as accounting for 10% of cases of childhood LP, and follicular LP as accounting for approximately 4% of cases of childhood LP (2). Linear LP is less common in adult (<1% of all LP) (2) and is considered a characteristic feature of childhood LP. The simultaneous existence of different phenotypes of LP in a single patient has been reported in several papers (3); however, to our knowledge, no report has shown simultaneous presentation of linear, hypertrophic and follicular LP, which were shown in our case.

LP is often induced by drugs, dental metals, chronic liver disease, viral infection, etc. The association of HBV or HCV infection with LP has been given particular focus (4). In this case, laboratory data of liver dysfunction together with the finding of atypical lymphocytes suggested the reactivation of EBV or CMV, which might be related to the aetiology of the LP.

Topical tacrolimus was applied as a treatment, and the eruptions gradually subsided within 6 months. Several reports have shown the usefulness of topical tacrolimus against LP, especially against LP in the oral cavity (5). This case showed a favourable clinical course during the topical treatment with tacrolimus.

The authors declare no conflicts of interest.



Fig. 1. Clinical appearance of (a) linear keratotic papules and plaques on the right leg and (b) verrucous plaque on the dorsum of the right foot. (c) Miliary, lustrous papules distributed almost consistently with hair follicles on the abdomen.

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