

Clinical Dermatology and Dermatitis

Segmental Pityriasis Lichenoides Chronica: A child Case

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Abstract

Pityriasis lichenoides chronica (PLC) is an uncommon papulosquamous disease. This disease is more common in child and young adult. The etiology of PLC is unknown, however, several microorganisms include Epstein-Barr virus (EBV), *Toxoplasma gondii*, HIV, parvovirus B19, adenovirus, *Staphylococcus aureus*, group A beta-hemolytic streptococci, and varicella zoster have been implicated. Skin lesions usually occur on a trunk and proximal portions of extremities, but any region of skin and even mucous membranes can be affected [1,2]. Acral and segmental distributions have been rarely reported. We report a case of localized PLC and review the literature about the similar case report [3-6].

Keywords

Pityriasis lichenoides chronica; segmental dermatosis; child

Case Study

A 9-year-old boy applied to our dermatology department with a 4-year history of a mild pruritic papulosquamous lesion on the lower abdomen. A diagnosis of Pityriasis lichenoides chronica (PLC) had been made by histopathological examination in the other hospital. He had taken a topical steroid. Lesions regressed by this treatment with residual hypopigmentation, but new lesions continued to develop on the same area. Thus, the eruption has remained stable over the past three years. His other past medical history and family history was unremarkable.

General physical and systemic examination was normal. Dermatologic examination showed reddish-brown papules, 3 to 5 mm diameter, on the lower abdomen at sites between T9 and T11 (Figure 1A). Several papules had the characteristic mica-like scale which could be removed easily, leaving behind a shiny brown surface (Figure 1B). His oral mucous membranes, nail, and scalp were normal.

Histopathological examination showed hyperkeratosis, focal parakeratosis, acanthosis, moderate lymphocytic exocytosis, a few necrotic keratinocytes and vacuolization of the basal layer in the epidermis, mild superficial perivascular lymphocytes infiltration, extravasated red blood cells in the dermis. Immunohistochemical staining demonstrated that most of the lymphocytes in the infiltrate were CD4 positive, CD30 negative. These histological findings were compatible with PLC.

In a laboratory investigation, complete blood cell count, liver, and kidney function tests, urine analyze, erythrocyte sedimentation rate were normal. Serologic markers were negative for hepatitis A, B, and C virus, CMV, EBV, HIV, parvovirus, rickettsia, VDRL, TPHA, salmonella, mycoplasma, and ANA. Anti-streptolysin O titers, ANA, throat culture were negative or normal.

The patient was treated with topical methylprednisolone aseponat (0.1% twice daily). His lesions cleared leaving some hypopigmentation, but lesions continued to recurrent on the same region after two months of treatment. His family did not accept the UVB treatment.

Discussion

PLC is an uncommon inflammatory disorder that occurs in all age groups, but predominantly in younger individuals. The trunk and proximal regions of extremities are preferentially affected [1]. A few cases of PLC with palmoplantar involvement has been reported. Chung et al have been reported a case with acral distribution without trunk involvement. Pubmed review revealed 3 cases of localized or segmental PLC similar to our case. Of the three cases, one was a child (9-year-old boy), and other two cases were adult (62-year-old woman and 50-year-old man) (Table 1). The lesions of two adult patients were localized on the left breast. The lesions of two boy patients were limited to the lower abdomen. We examined the dermatomal localization of lesions of our case and other tree cases. The lesions of our case and other boy patient were localized to T9-11 dermatomes. The lesions of 62-year-old woman patient were restricted to the left T4 dermatome [5]. The localization of lesions of 50-year-old man patient was on the left lower breast [4].

The definitive cause of PLC is still unknown, although some viral (EBV, HIV, adenovirus,

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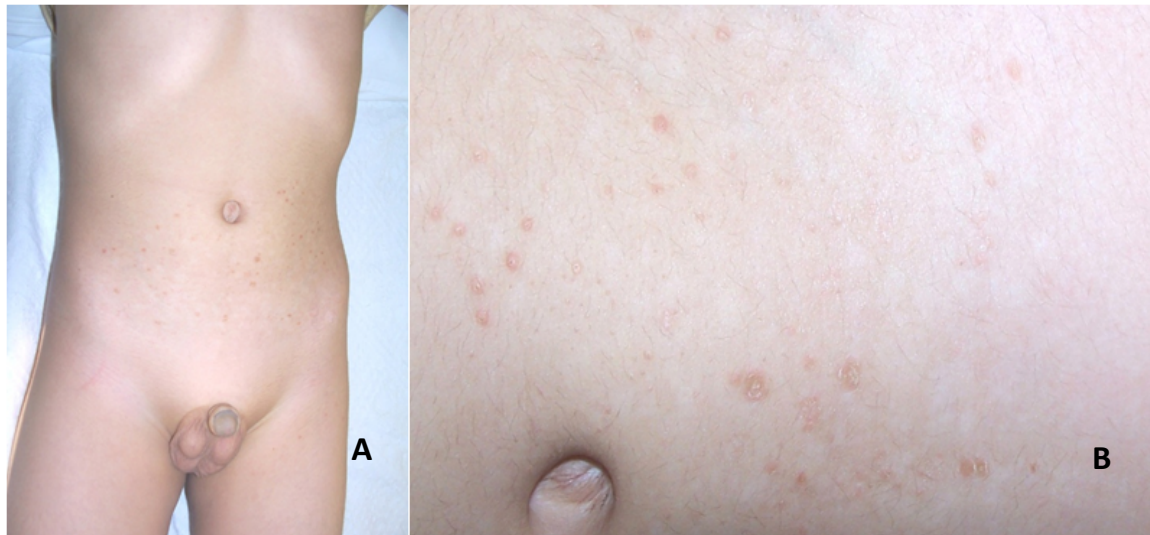


Figure 1: (A) Erythematous papules on the lower abdomen at sites between T9 and T11
(B) The magnified view of several papules with mica-like scale

	Age	Gender	Localization	Duration of lesions	Associated diseases
Cliff S⁴	50	Man	Left lower breast	6 years	None
Child FJ⁵	62	Women	Left upper breast	4 years	T-cell lymphoma
Hernández-Martín A⁶	9	Boy	Bilateral lower abdomen	6 years	None
Our case	9	Boy	Bilateral lower abdomen	4 years	None

Table 1: Clinical and demographic features of segmental PLC

parvovirus B19, varicella-zoster), parasitic (*Toxoplasma gondii*) and bacterial (*Staphylococcus aureus*, group A beta-hemolytic streptococci) microorganisms have been implicated. Furthermore, drug-induced PLC has been reported [7]. Lazarov et al reported a case of paraneoplastic PLC. The lesions of paraneoplastic PLC was appeared after the oncocytoma and disappeared after the nephrectomy [8]. While pityriasis lichenoides generally follows a benign course, there are infrequent reports of progression to cutaneous T-cell lymphoma [9]. Child et al also reported a case of cutaneous T-cell lymphoma presenting with segmental PLC [5].

Topical corticosteroids and oral antibiotics are often the first-line therapy for PLC. Second-line therapies are ultraviolet-B and PUVA. For more resistant and severe disease, other alternative therapies are methotrexate, acitretin, dapsone, cyclosporine [2]. Our patient was treated by topical corticosteroid, but his lesions continue to recurrent on same localization.

This case revealed that PLC does not only cause extensive involvement, but may also involve segmental involvement.

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