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Original Research Article

Clinico-epidemiological study of childhood lichen planus at a tertiary care centre in South India

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ABSTRACT

Background: Lichen planus (LP) is an autoimmune disorder occurring infrequently in children. LP is mainly seen in adults of both sexes. There are only a few studies on childhood LP in South India.
Methods: 52 children under 14 years of age with LP were evaluated. The study was done in the Dermatology outpatient department from April 2016 to March 2018. The various clinical and epidemiological features observed are recorded in the study.
Results: LP was slightly more common in boys and the age group mainly affected was 5-9years. Classical LP was the most common clinical type and extremities were the main site of skin lesions. Erosive lesions on buccal mucosa were the commonest type of mucosal involvement. Koebners phenomenon was seen in a significant number of cases.
Conclusions: LP is not rare in children and resembles adult LP in most aspects. Mucosal and nail involvement is seen in many cases. Knowledge about the various clinical patterns of LP will help in early diagnosis and proper treatment.

Keywords: Childhood, Lichen planus, Mucosa, Nail

INTRODUCTION

Lichen planus (LP) is a papulosquamous disorder of unknown aetiology affecting the skin, mucosa, hair and nails. LP is common in 30-60 years age group and shows no gender predilection. In India childhood LP contributes to 11% to 19% of total LP cases.[1,2] LP in children differs from adult LP in various clinical and epidemiological aspects. This study was done to observe the various clinicoepidemiological features of LP in children.

METHODS

A prospective study of clinicoepidemiological features of LP in 52 children who attended the dermatology outpatient department of Kannur Medical College, Anjarakandy was done. The study was done over a period of 2 years from April 2016 to March 2018 after getting institutional ethical clearance. Inclusion criteria: All children upto 14 years with clinically and histopathologically confirmed LP who were willing for the study were included. Exclusion criteria: Unwilling patients, children above 14years and patients with other conditions with lichenoid lesions were excluded. A detailed history regarding age, sex, symptoms, site of onset, duration of the illness, family history were noted. Dermatological examination was done and morphology, distribution, koebners phenomenon, involvement of mucosa, nails and hair was recorded.

RESULTS

Out of 52 children in the present study, 28 were boys and 24 were girls. The most common age group involved was 5-9years (Table 1). The age of onset was between 10 months to 13 years. A positive family history was seen in

2 cases only. Mucosal and nail involvement were seen in 16 and 5 cases respectively. The most common clinical type was classical LP followed by actinic, hypertrophic, eruptive and linear types (Table 2).

Table 1: Age and sex distribution.

Age group	Male	Female	Total	%
0-4	3	2	5	9.6
5-9	16	10	26	50
10-14	9	12	21	40.4
Total	28	24	52	100

Table 2: Clinical types of skin LP.

Type	Male	Female	Total	%
Classic	12	15	27	51.9
Actinic	8	4	12	23.1
Hypertrophic	5	2	7	13.5
Eruptive	3	1	4	7.7
Linear	0	2	2	3.8

Classical LP presented as pruritic purple polygonal plane topped papules and plaques. The most common site of skin involvement was extremities followed by trunk (Table 3). Buccal mucosa was the most common site of mucosal involvement (Table 4) and erosive LP was the main clinical type (Table 5). Nail changes seen were longitudinal ridging, pterygium and nail dystrophy. Koebners phenomenon was seen in 35 cases (Table 6).

Table 3: Site of skin lesions.

Site	Male	Female	Total	%
Extremities	14	12	26	50
Trunk	11	9	20	38.5
Head and neck	2	3	5	9.6
Genitalia	1	0	1	1.9

Table 4: Site of oral mucosal lesions.

Site	Male	Female	Total	%
Buccal	5	4	9	56.3
Gingiva	2	2	4	25
Tongue	1	2	3	18.7

Table 5: Clinical types of mucosal LP.

Types	Male	Female	Total	%
Erosive	5	3	8	50
Reticulate	3	2	5	31.3
Plaque	0	3	3	18.8

Table 6: Associated features.

Childhood LP	Koebners phenomenon	Family history
No of patients	35	2
%	67.3	3.8

DISCUSSION

Lichen planus is a chronic idiopathic inflammatory disorder affecting the skin and mucosa characterised clinically by pruritic violaceous papules mainly on extremities and histopathologically by wedge shaped hypergranulosis, basal cell degeneration and band like lymphocytic infiltrate at dermoepidermal junction. Childhood LP contributes to about 2.5% of pediatric dermatoses.[3]

In the present study LP was more common in boys than girls with a ratio of 1.17:1. This is similar to studies by Shilpashree et al.[4] The most common age group affected was 5-9 years. Similar findings were noted by Puri.[5]

Classical LP was the most common clinical type and extremities were the main site of involvement. This is similar to studies by Shilpashree and Kumar.[4,6]

Buccal mucosa was the commonest site of mucosal involvement and erosive type was most common. Chatterjee et al has noted similar findings.[7]

Nail involvement was seen in 9.6% of cases and the common nail changes included longitudinal ridging, pterygium and dystrophy. Similar findings were noted by Puri.[5]

A positive family history was seen in only 3.8% of cases. Kumar et al and Montoya et al have not noticed any significant family history of LP in their study.[1,8]

Koebners phenomenon was seen in 67.3% of cases. Similar findings were noted by Kumar et al.[6]

Various treatment options for childhood LP include oral dapsone, metronidazole and steroids, topicals like steroids, tacrolimus and retinoids and intralesional steroids.[9]

CONCLUSION

Lichen planus is not rare in children and is slightly more common in boys than girls. Classical LP is the most common clinical type and koebners phenomenon is seen in a considerable number of cases. Extremities and buccal mucosa were the commonest sites of skin LP and mucosal LP respectively. Further studies are required to understand the etiopathogenesis and clinical profile of lichen planus in children.

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