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A CLINICO-AETIOLOGICAL PROFILE OF 375 CASES OF LICHEN PLANUS

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The study of clinical, histopathological and aetiological pattern, of lichen planus (LP) in 375 patients was done in this part of Western Rajasthan. The incidence of LP was 0.8%. 58.7% cases were male and maximum number of cases (46.93%) were in age group of 20-39 years. In 70.66% of patients only skin was involved while in 10.18% of cases only mucous membrane was involved. In 61.6% patients the lower extremities were involved. Familial LP was seen in 8 families. Association of LP was found with hypertension (2.4%), polymorphic light eruption (2.1%), vitiligo (1.9%) and diabetes mellitus (1.6%). 48.5% of cases showed lymphocytosis with raised ESR. Actinic LP was seen in 14.1% of cases. 13.1% of patients showed combination of typical LP or its variants to which term lichen planus variata was given.

Key words : Lichen planus, Actinicus, Variata

Introduction

Lichen planus (LP) is a disorder of worldwide distribution. The incidence as well as pettern of LP changes according to geographical areas. A higher incidence of LP has been seen in Middle East countries. Its incidence appears to be higher in India also.[1,2] Lichen planus actinicus (LPA), which has been frequently reported from arid zone countries of middle east,[3] has been observed in Western Rajasthan also which has vast arid zone. This work was designed to study the clinical, histopathological and aetiological patterns of LP in this part of Western Rajasthan.

Patients and Methods

375 patients of LP attending our department were the subjects of this study. From each patient, a detailed history and clinical findings were recorded laying emphasis on symptoms, duration, mode of onset, occupation, drug intake at the time of onset of disease, morphology of lesions, sites of involvement and systemic examination to rule out any associated disease. Biopsy was taken in as many cases as possible to confirm the clinical diagnosis.

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Results

The total number of new cases registered during the period of study were 49633. Thus the incidence of LP was 0.8%. The registration of LP cases was more during the spring and summer season (February to September). Out of 375 patients 220 were male and 155 were female. The oldest patient was 90 years old while youngest was 5 years old.

Maximum number of cases (46.9%) were in age group of 20-39 years followed by 29.0% cases in 40-59 years age group (Table I). Duration of LP varied from 5 days to 30 years. In majority of cases (70.66%), only skin was involved while in 19.16% cases it was involved with mucous membrane. Only mucous membrane was involved in 10.18% cases (Table II). The involvement of lower extremities was found to be highest (61.9%) followed by upper extremities (60.5%), trunk (35.5%), back (27.7%), face (23.7%), oral mucosa (25.9%),

Table I. Age wise distribution of various presentations of lichen planus

	Type	0 - 19 years	20 - 39 years	40 - 59 years	More than 60 years	Total
1.	Typical skin LP	31	60	49	11	151
2.	1 + MM LP	2	24	16	2	44
3.	MM LP alone	4	18	14	4	40
4.	Actinic LP	13	28	10	2	53
5.	Lichen planopilaris	4	6	-	-	10
6.	LP linearis	1	6	2	-	9
7.	LP hypertrophicus	1	2	3	1	7
8.	LP pigmentosus	-	3	2	1	6
9.	LP keratodermicus	1	2	-	-	3
10.	LP annular	-	-	-	1	1
11.	Bullous LP	-	1	1	-	2
12.	LP variata	11	24	13	1	49
	Total	68	174	110	23	375

(LP = Lichen planus, MM=Mucous membrane)

Table II. Skin and mucous membrane involvement in lichen planus

Distribution of lesions	No. of case	%
Skin only	265	70.66
Mucous membrane only	72	19.16
Skin and mucous membrane	38	10.18
Total	375	100.00

genitalia (9.3%), soles (4.3%), palms (3.5%), nails (6.4%) and scalp (5.3%). 72.8% cases were symptomatic while 27.2% cases were asymptomatic. 2.4% cases were associated with hypertension while other associated diseases were polymorphous light eruption (2.1%), vitiligo (1.9%), diabetes mellitus (1.6%), discoid lupus erythematosus (0.8%), rheumatoid arthritis and scabies (0.4%). In 8 families, more than one member suffered with LP or its variant (Table III). Out of 113 biopsies,95 showed histopathological features of LP or its variants while features of chronic non specific dermatitis was seen in 18 biopsies.40.5% cases showed lymphocytosis with raised ESR; while 2.9% and 6.9% cases showed lymphocytosis only and raised ESR only respectively.

Table III. Familial LP

Family	Sufferers	Type of LP
I	Mother	Typical LP
	Daughter	Typical LP
II	Mother	Typical LP
	Son	Typical LP
III	Elder brother	Actinic LP
	Younger brother	Typical LP
IV	Mother	Typical LP
	Son	Actinic LP
V	Father	Typical LP
	Son	Typical LP
VI	Father	Typical LP
	Daughter	Typical LP
VII	Grand father	Typical LP
	Grand son	Typical LP
VIII	Mother	Typical LP
	Daughter	Typical LP

Discussion

The incidence of LP in this study was 0.8%. This is in accordance with reports from Western countries (0.5 to 1.2%)[4] and also from India (0.76%).[2] However, a higher incidence of 1.4% has also been reported from India.[1] Our study shows that maximum cases were registered during February to September. It is similar to a report from Middle-East.[5] No seasonal variation has been

reported by some authors.[1,2] On the contrary a study[4] reported a low incidence of LP in May, June and November and high incidence in December and January. Predominance of males was in accordance with report of a few[2] while opposite ratio has also been reported.[1] Equal ratio has also been reported.[1] Maximum number of cases were in 20-39 years age group like others[1,2] from India. Reports from Western countries[4] show 30-60 years age group to be more commonly involved. Duration in our study was similar to others.[1,2] Involvement of skin with mucous membrane was found to be low compared to other.[1,2] The involvement of skin alone in 70.66% cases agree with reports of others.[1,2] In our study mucous membrane alone was involved in 10.18% cases. It differs with other studies.[1,2] Nail changes in 6.4% cases varied from thinning of nail plate to pterygium unguis in finger nails and even complete destruction of toe nails in one case. The nail involvement in our study was found to be low as compared to others.[6] In their study, Sehgal and Rege did not find any case while Singh and Kanwar[2] reported it in 1.6% cases.

A unique and clinically distinct type of LP reported from Middle East notably Egypt, Israel, Iraq, East Africa and also from India, was found in this study. The condition was called actinic LP[7] or subtropical LP.[3,5] In Ethiopia, it was called "Melanodermatite Lichenoide".[8] In this study 19.2% cases of actinic LP (ALP) were seen. Out of which, 14.1% had ALP only while 5% patients had associated lesions of typical LP or its variants. It's incidence was low in comparison to other reports from Middle East.[3,5] One report from India[2] reports ALP in 7.48% cases. Men were slightly more involved while a study[5] reports the reverse. The disease was found more in poor and middle class people particularly those having jobs that require prolonged exposure to sun. The incidence was much more higher during the summer.

Some of the following combinations seen in our patients have not been highlighted in literature.

LP + lichen planus hypertrophicus (LPH) -20, ALP + LP - 14, ALP + LPH - 2, LP + LPH + lichen planus annularis - 1, lichen planopilaris (LPP) + LP -3, LPH + LPP + LP -3, LPP + ALP + LP -1, LP + LP linearis -2, LP + LP annularis - 1, LPA + LPH+LPP + LP annularis -1, LP pigmentosus + LPP -1. For such cases, we suggest the term "lichen planus variata".

2.4% cases had hypertension while in other reports[9] this association was seen in more cases. Its association with vitiligo in 1.9% cases supports the possible role of auto-immunity in pathogenesis of LP. LP was seen in association with diabetes mellitus also similar to other reports.[10] Association of LP with discoid lupus erythematosus as overlap syndrome has been reported by others also.[11] Cases of familial LP were also recorded like others.[12] The finding of increased number of lymphocytes is in contrast to other report.[4] Lastly the patients of ALP from Thar desert of Western Rajasthan were almost compatible clinically and histopathologically with those reported from subtropical countries where the environmental conditions are almost same.

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