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Clinico-pathological profile of cutaneous lichenplanus: An experience from a tertiary care centre

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ABSTRACT

Introduction: Lichenplanus is a chronic inflammatory disorder with remissions and relapses. The pathogenesis is likely to be autoimmune, with T Lymphocytes targeting the basal keratinocytes. The clinical presentation is violaceous papules and plaques in skin, mucous membranes and nails. The aim of this study is to analyse the clinical and pathological profile of Cutaneous Lichen planus of all patients diagnosed with Lichen planus attending our hospital from 2016 to 2019.
Materials and Methods: All cases diagnosed as Lichen planus clinically and confirmed histopathologically are analysed for age, sex, location, duration, associated comorbid conditions, type of Lichen Planus, histopathological features and for malignant transformation.
Results: Of the 91 patients diagnosed, 83 (91%) were classical Lichen Planus, 6 (6.5%) hypertrophic Lichen Planus, 2 (2.5%) lichenplanopilaris. The median age was 38 years and the mean age 40 years. Majority were in the age group of 20 to 40 years. Male : Female ratio was 1.1 :1. 10 (10.98%) patients were in paediatric age group. 7 (8%) had skin and oral involvement. 40 patients had violaceous plaques & papules, 46 pigmented and violaceous plaques and papules, 5 hypertrophic pigmented plaques. No nail or genital involvement was seen in any of our patients.
Conclusion: The predominant type was classical Lichen planus. Few patients had Hypertension, diabetes Mellitus, diabetes mellitus and hypertension seemed to be age related. No malignant transformation was observed.

1. Introduction

Lichen Planus (LP) is a chronic remitting and relapsing disease with a possible autoimmune basis which can be triggered by virus, drugs and chemicals. The role of autoreactive cytotoxic T lymphocytes is considered in the pathogenesis.[1] The clinical presentation is violaceous papules and plaques, pigmented plaques and hypertrophic plaques. Depending on the clinical type of LP the clinical manifestations differ. Histopathological features are very characteristic but all features may not be present in all cases. The study is undertaken to evaluate the clinical and histopathological profile of all cases of LPs diagnosed in a tertiary care hospital.

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2. Materials and Methods

This retrospective study was undertaken over a period of three years in the department of Pathology. During the period of 2016 to 2019. 91 patients are clinically diagnosed and confirmed as LP histopathologically. The clinical features and histopathology findings of all patients were tabulated and analysed.

3. Results

Out of the 91 patients diagnosed, Classical LP were 83 (91%), Hypertrophic LP (HLP) 6, (6) Lichen planopilaris (LPP) 2 (2.5%)(Figure 1). 50 males and 41 females with Male : female ratio 1.1 :1(Figure 2). Maximum number of patients were in the age group of 20-40 years (Figure 3) The median age was 38 years and the mean age was 40 years. 10

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(11%) patients were in the paediatric age group. Youngest patient was 4 years and oldest 75 years. The clinical presentations were intense itching and 40 patients presented with violaceous plaques & papules, 46 with pigmented, violaceous plaques and papules, 5 with hypertrophic pigmented plaques. No nail or genital involvement was seen in any of the patients attending Dermatology Department. The sites involved were upperlimbs, lower limbs, head and neck, oral cavity and trunk. Single site was involved in 3 patients and in other patients multiple sites with bilateral involvement was seen. 8 patients had oral lesions in addition to cutaneous lesions. Nail and glabrous skin involvement was not seen in any of our patients. The patients reported to the hospital from 23 days to 5 years from the onset of clinical signs and symptoms. Diabetes Mellitus with Hypertension, Diabetes Mellitus and hypertension were seen in 15 (16%), 7 (8%) and 3 (3.5%) patients but seemed to be age related and not associated with LP. No Hepatitis C Virus and vitiligo were associated with LP in this study. No malignant transformation was seen.

The diagnostic Histopathological features of LP are Hyperkeratosis, acanthosis, wedge shaped hypergranulosis, basal cell vacuolation, presence of Civatte bodies, wedge shaped reteridges and dense band like lymphocytic infiltrate in the dermo epidermal junction (Figures 3, 4 and 5). Hyperkeratosis 92%, acanthosis in 68%, hypergranulosis in 91% Basal cell vacuolation in 91% Dense lymphocytic infiltrate in dermoepidermal junction in 89%, wedge shaped reteridges in 76% and Civatte bodies found only in 30% of cases.

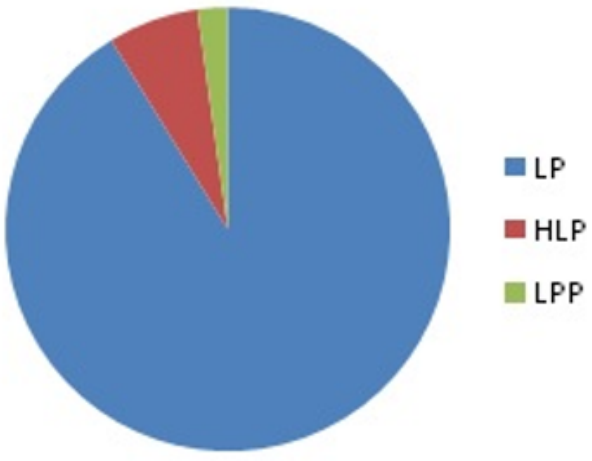

Fig. 1: Different types of LP

4. Discussion

The study was undertaken to analyse the clinicopathological profile of cutaneous LP in a tertiary care Hospital. From

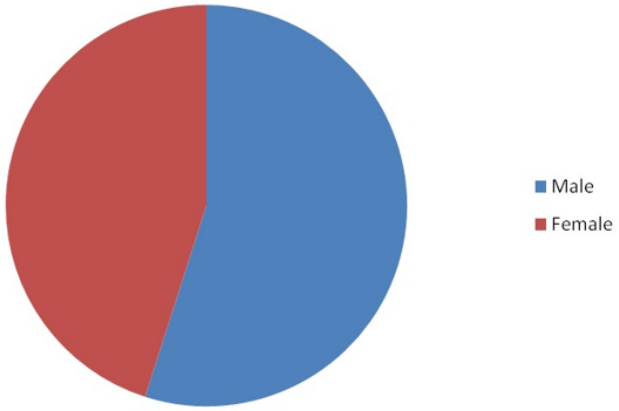

Fig. 2: Male : Female ratio

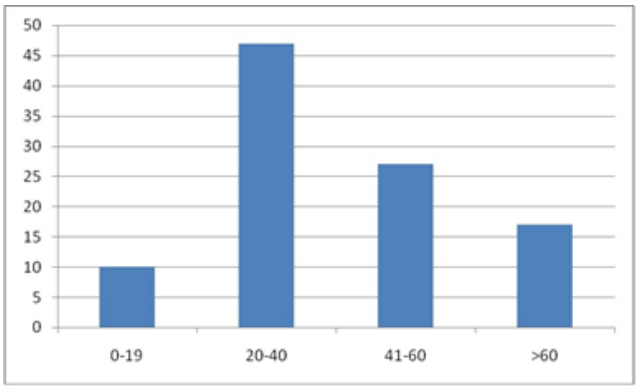

Fig. 3: Age wise distribution

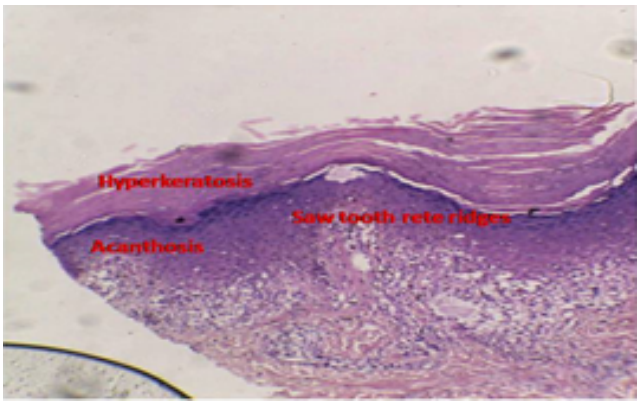

Fig. 4: H&EX 10 Hyperkeratosis

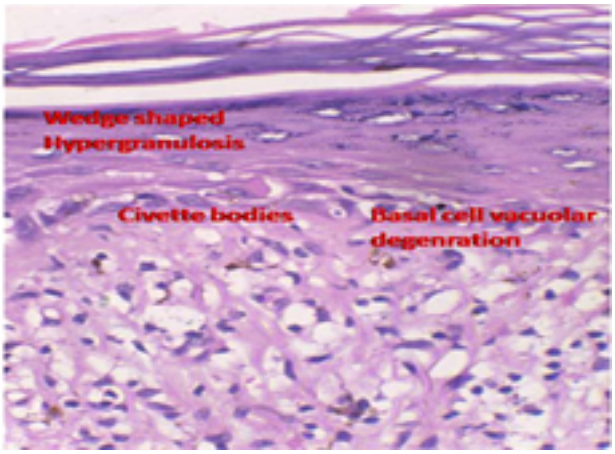

Fig. 5: H&E X 40 Hyperkeratosis, wedge shaped hypergranulosis, Basalcell vacuolation, civatte bodies

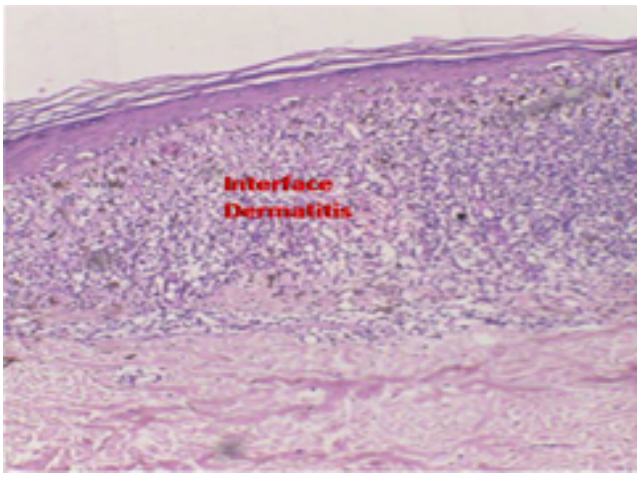

Fig. 6: H&E X 40 Interphase dermatitis

2016 to 2019, 91 patients were clinically diagnosed as Cutaneous LP and confirmed by histopathology. Classical LP is the commonest in our study constituting 91%. In other studies also Classical LP was the commonest and the incidence ranged from 61% to 91%.[1–4] Maximum patients diagnosed were in the age group of 20 to 40 years and this was in concordance with other Indian studies.[3–6] But in western literature maximum cases were reported in older age group of 30-60 years than in Indian studies.[7–9] 10 patients (10.8%) were in paediatric age group. Even higher percentage of paediatric patients were reported in other Indian studies.[4] In contrast in Western studies LP is rare in paediatric age group.[9] Environmental factors may probably be responsible for the higher percentage of paediatric patients involvement.[10] In our study slight male preponderance is noted as in the studies by Tickoo et al[1] where as in some of the studies female preponderance is noted.[11] Bhattacharya et al in their study found equal gender prevalence.[4] In our study lesions at multiple sites were common where as in some of the studies lower limb involvement was more common.[4] Oral lesions were seen in 8% of cutaneous LP in our study. No genital or nail involvement was seen in our study.[6,7,11] Following Histopathological features of Hyperkeratosis 92%, acanthosis seen in 68%, hypergranulosis in 91% Basal cell vacuolation in 91% Dense lymphocytic infiltrate in dermoepidermal junction in 89%, wedge shaped reteridges in 76% and Civatte bodies found only in 30% of cases. This is in concordance with other studies.[2,12] No vitiligo or associated liver disease was seen in our cases. The association of Hypertension, Diabetes Mellitus, Hypertension and Diabetes Mellitus seemed to be age related only. No malignant transformation was seen in any of our patients. However malignant transformation is more common with oral lichen planus than cutaneous lichen planus.[13]

5. Conclusion

Classical LP is the most common in our study with slight male predominance. LP is seen more in younger patients than in western population. No malignant transformation was observed in any of our patients inspite of long duration of the disease.

6. Conflict of Interest

None.

7. Source of Funding

None.

8. Acknowledgement

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