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Original Article

Retrospective evaluation of clinical and demographic features of 135 patients with lichen planus

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Abstract

Aim: Lichen planus (LP) is a chronic, inflammatory, papulosquamous skin disease with different clinical features. The incidence varies according to the geographical regions, although it is seen all over the world and all races. In this study, it was aimed to determine the clinical and demographic characteristics of patients with LP in our clinic.

Material and Methods: We included 135 patients who applied to our clinic between January 2013 and December 2017 and who were diagnosed as LP by clinical and histopathological examination and who had HbsAg and Anti HCV tests. Patients' age, sex, clinical variants of disease, mucosal involvement, nail involvement, HbsAg and Anti HCV tests were retrospectively recorded.

Results: Of 135 patients included in the study, 68 (50.4%) were males and 67 (49.6%) females. The mean age of the patients ranged from 18 to 65 years, with a mean of 37.8 ± 12.7 years. Oral mucosal involvement was present in 30 (22.2%) patients and nail involvement in 10 (7.4%) patients. Classical LP was present in 111 of the patients (82.2%). HbsAg positivity was found in 3 of the patients (2.2%), but no anti HCV positivity was detected in any of the patients.

Conclusion: The clinical and laboratory characteristics of the LP patients in our study were similar to the literature. More research which includes more patients is needed to better understand the clinical and epidemiological characteristics of LP.

Keywords: Lichen Planus; Oral Mucosa; Nail.

INTRODUCTION

Lichen planus (LP) which has various clinical variants is a chronic, inflammatory, papulosquamous skin disease affecting the skin, mucous membranes, nail and hair. The incidence varies according to geographical regions although it is seen in all the world and all races (1). Although the etiopath-ogenesis of LP is not known precisely, it is thought to be a T-cell mediated autoimmune disease. However, the epidemiological, clinical and pathogenetic features of the disease have not yet been fully elucidated (1,2,3). In this study, it was aimed to determine the clinical and demographic characteristics of the patients followed up as LP diagnosis and to compare the obtained data with the results of the literature.

MATERIAL and METHODS

Our study included 135 patients who admitted to the Harran University Medical School, Derma-tology outpatient clinic between January 2013 and December 2017 and who were clinically and histopathologically diagnosed as LP and had HbsAg and Anti HCV tests. Age, gender, clinical variants of the disease, mucosal involvement, nail involvement, HbsAg and Anti HCV tests were retrospectively recorded.

SPSS 21.0 for windows (SPSS Inc. Chicago, IL, USA) software is used for statistical analyses.

RESULTS

Of the 135 patients included in the study, 68 (50.4%) were males and 67 (49.6%) were females. The mean age of the patients ranged from 18 to 65 years, with a mean of 37.8 ± 12.7 years. Oral mucosal involvement was present in 30 (22.2%) patients and nail involvement in 10 (7.4%) patients. In study group; 111 (%82.2) patients had classical LP, 7 (%5.2) patients had eruptive LP, 6 (%4.4) patients had lichen planopilaris, 4 (%3) patients had hypertrophic LP, 3 (%2.2) patients had pigmented LP, 2 (%1.5) patients had

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atrophic LP, 1 (%0.7) patient had actinic LP and 1 pa-tient had LP pemfigoides.(Table 1) HbsAg positivity was found in 3 patients (2.2%) but no HCV positivity was detected in any of the patients.

Table 1. Clinical variants of lichen planus patients

Clinical variants	Number of patients (%)
Classical LP	111 (%82.2)
Eruptive LP	7(%5.2)
Lichen planopilaris	6(%4.4)
Hypertrophic LP	4(%3)
Pigmented LP	3(%2.2)
Atrophic LP	2(%1.5)
Actinic LP	1(%0.7)
LP pemfigoides	1(%0.7)

LP: Lichen planus

DISCUSSION

LP is an itchy inflammatory disease with unknown etiology. It is stated that the estimated global prevalence of LP varies between 0.22% and 5%. While men and women are equally affected by the disease, in some studies it is reported that the disease is seen twice as often in women than in men (4,5).

In a study by Manolache et al., 76% of LP patients were of female patients (6). In the study con-ducted by Sen et al., 56% of the patients were female and 44% were males (7). In the study con-ducted by Yanık et al., the number of male and female patients was equal (8). In our study LP was seen in women and men at equal frequency.

Approximately two-thirds of LP patients develop between 30 and 60 years of age (1). In a study conducted in our country, the ages of the patients ranged from 1 to 84, with a mean score of 43.2 (9). In another study, the age of the patients ranged from 8 to 78, with an average of 44.7 (7). The age of the patients ranged from 9 to 80 years with an average of 44.6 ± 1.2 (8). In our study, the ages of the patients ranged from 18 to 65 years with an average of 37.8 years.

The characteristic lesion in LP is itchy, small, slightly squamous, purple papules with smooth surface. The most common type is classical LP. The others are eruptive LP, lichen planopilaris LP, hypertrophic LP, pigmented LP, atrophic LP, actinic LP and LP pemphigoides (1,2,3,10).

In the study conducted by Turan et al., it was reported that classical LP was seen most frequently, followed by hypertrophic and linear LP (9). Similarly, the most common types in the Yanık et al's study were classical and hypertrophic types (8).

Anbar et al reported that actinic LP was the most common LP variant in the study with 50 patients (11). The study by Kyriakis et al. Reported that follicular type is the most common type seen after classical LP (10). In both studies it was stated that the differences in clinical types may be due to climatic changes (10,11). The most common type in our study was classic LP consistent with the literature.

In Yanık et al. study, lichen planopilaris was observed in 10 (5.2%) patients (8). Turan et al. reported this ratio was found to be 2.2% (9). In our study, lichen planopilaris was seen in 6 (4.4%) patients.

It has been reported that oral involvement in cutaneous LP patients is 65% (12). Turan et al reported that the rate of oral involvement accompanying cutaneous lesions was 14.7% (9). In Yanık et al. study, oral involvement was observed in 35 (24.8%) patients (8). Oral involvement was observed in 22.2% of LP patients in our study.

Characteristic involvement in oral LP is white reticular lesions. It is reported that erythematous and erosive lesions are frequently accompanied by reticular lesions, while the reticular form alone can be seen (13,14). In a study conducted in China, reticular involvement was seen most fre-quently in 51% of cases (14). In a UK study, mixed type lesions with erythematous and erosive lesions together with reticular lesions were observed in 60% of the cases (13).

In the study performed by Akarsu et al., reticular type was the most common type (83.3%) of oral involvement (15). Yanik et al. also reported reticular type oral mucosal involvement was the most common (49.2%) (8). In our study consistent with the literature, the most common type of oral LP was reticular type.

Nail involvement in LP patients ranges from 1 to 10% (1,2,9). Yanık et al. found nail involvement in 3 (1.6%) patients (8). In our study similar to the literature, 10 (7.4%) patients had nail involvement.

In the etiology of LP, HBV, HCV, vaccines, contact allergens, stress and some autoimmune dis-eases are responsible (16,17,18,19). Ferahbas et al. and Karavelioglu et al. found no significant association between HCV infection and LP (20,21). Similarly, there was no significant association between HCV infection and oral LP in two studies conducted in China and India (22,23).

In a study with 260 LP patients, conducted by Denli et al. the relationship between HCV and LP was investigated and anti HCV positivity was detected in 7 (5%) patients. These values were statistically significant when compared to the control group (18). In study conducted by Kırtak et al., Anti HCV levels of 73 LP patients were evaluated. In this study, anti-HCV positivity was detected in 5 (6.84%) patients and the association was reported to be significant (24).

Some antigens are synthesized in the basal membrane zone of hepatocytes due to HCV infection, which is thought to stimulate cytotoxic T cell response to this region (18,24). No significant asso-ciation between HCV infection and LP was found in our study.

Another viral agent investigated in the etiopathogenesis of LP is HBV. Although the pathogene-sis is not completely known, it is thought that HbsAg cross-reacts with keratinocytes similar to HCV infection and stimulates the

autoimmune response. The fact that a large number of cases with LP developed after HBV vaccination has been reported in the literature suggests that HBV and LP are related (19).

In study by Denli et al., HBV positivity was observed in 24 patient (17.1%) and it was stated that when compared to the control group, the association was significant (18). A similar study by Rub-sam et al. reported a significant association between HBV and LP (25). There was no significant relationship between HbsAg positivity and LP in two studies conducted in Saudi Arabia and Pakistan (26,27). In our study, HbsAg positivity was found to be 2.2%.

CONCLUSIONS

In conclusion, we found that LP is seen equally in women and men, the most common variant is classical LP, and that oral mucosa and nail involvement rates are similar as literature, and that HCV-HBV infections are not associated with LP. More research which includes more patients is needed to better understand the clinical and epidemiological characteristics of LP.

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