Frequency of Hepatitis C Seropositivity in Patients having Generalized Lichen Planus

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ABSTRACT

Background: Lichen planus (LP) is a chronic common inflammatory condition having characteristic 5p’s i.e. polygonal pruritic purple papules and plaques. Mucocutaneous involvement is there along with hair and nails involvement. Drugs infections and genetics play its role to cause the disease. Its worldwide prevalence is 1.4% and its prevalence in India is 0.74%, while in Pakistan it is 2.2 to 14%. Though controversial but research has shown a significant positive relationship between Hepatitis C seropositivity and LP.

Objectives: To measure the frequency of hepatitis C (HCV) in patients of lichen planus (LP) visiting Saidu Group of Teaching Hospitals (SGTH).

Material & Methods: Cross sectional observational study was performed at skin out door Saidu Group of Teaching Hospitals (SGTH) Saidu Sharif Swat KPK. Total of 100 patients, fulfilling inclusion and exclusion criteria were enrolled. Duration of study was six months. After informed consent, history, examination and biochemical measurements recorded. Hep C as an outcome variable was measured using third generation ELISA. All data was analyzed with SPSS 24.0.

Results: Of the total 100 patients 53 were male and 47 were female. 11 were seropositive for Hep C and 89 were Hep C negative. Patients of age 20 and below were 25%, and 2 of them were positive for Hep C serology. In the remaining 75% of patients having age more than 20 years, 9 patients were seropositive for Hep C.

Conclusion: To detect the undiagnosed cases of hepatitis C virus all patients of LP must be screened for HCV seropositivity due to the considerable relationship between HCV and LP.

Keywords: Hep C, Lichen Planus, ELISA.

INTRODUCTION

Lichen Planus is an immunologically mediated dermatosis involving skin and/or mucous membranes, characterized by flat-topped pink to violaceous, shiny, pruritic polygonal papules on the skin and milky white reticulated papules in the mouth.¹ Prevalence of LP is 0.5% of population. Prevalence of Hep C in Pakistan is 2.2 to 14 %.² Association between LP and HCV remains controversial. In some reports the association is more positive as 22% in Brazil, 62% Japan while in Great Britain there is no association reported.¹² HCV seropositivity associated with LP suggest its role in pathogenesis.³⁴ Some studies also suggest that the relationship getting higher with time.² ⁵ ⁶ The current study was thus conducted to measure the relationship between the two, in patients visiting SGTH hospital, Saidu Sharif Swat KPK.

MATERIAL AND METHODS

In total of 6 months duration 100 patients having generalized LP, fulfilling inclusion and exclusion criteria visiting skin OPD of SGTH Saidu Sharif Swat were enrolled. Patients having generalized LP, of age 16 or more than 16, having no other dermatosis regardless of marital status and gender. Patients less than 16 years having lichenoid drug eruption and localized form of LP were excluded. HCV seropositivity was 11% (11/100).

After taking the informed consent, clinical examination was carried out. Serum was obtained and sent for anti HCV antibodies using second generation ELISA (Enzyme linked immunosorbent assay).¹³

RESULTS

Mean age of the total 100 patients was 31.47±11.55. The mean age of male was 30 years, while for females the mean age was 33 years. Male patients included in the study were 53%, whereas, females were 47%. Thus, the male patients outnumbered the female patients with 7%. Out of 100 patients 11 were HCV seropositive including a total of 9% male and 2% female (see Table I). Majority of patients who were positive with HCV were in the age of 21 years and above. Those with duration of lichen planus 5 to 10 years were 89 with 9 seropositive. Those with duration of lichen planus more than 10 years were only 9 and 2 of them were seropositive.
DISCUSSION
Hepatitis C remains a common infection having many cutaneous manifestations in which LP is one of these cutaneous manifestations. The relationship is still not completely established. Literature review shows that oral erosive form of LP is more associated with Hep. C than any other variant. In our study 11% of patients presenting with generalized LP were anti HCV positive. Different studies had different outcomes. Like study by Farzana et al. shows 14% seropositivity. Several other studies have shown a positive relationship particularly in USA, Mediterranean and Japanese population. While in Italy, Iran, Spain and Germany the relationship was insignificant. The association was absent in France, India and England. There is remarkable influence of geographic origin on study results. As in study by Javed et al., while in Great Britain and Netherland where HCV prevalence is very low 0.088-0.55 and 0.7%, respectively, did not show any association. While in study by Frank, Christina, et al. in Egypt where HCV prevalence is 15 to 20 % in general population while the LP associated with HCV was 70%. In comparison with the study conducted by Javed et al., our study showed significant prevalence of HCV in patients having generalized form of LP. However, Javed et al. found an insignificant prevalence between HCV and generalized LP, while a remarkable prevalence between mucosal LP and HCV.

Moreover, no association was found between HCV and LP with increased age in our study which was in line with the study conducted by Javed et al. (p value=0.095). On the other hand, duration of illness was found to have no connection with HCV seropositivity in patient of LP which was against the study by Javed et al. (p value=0.002) and Faiz et al.

ELISA has the chance to be false positive at times. More confirmatory test for detection of HCV seropositivity is PCR. In our study the HCV seropositivity of LP patients was high and those with lesser the duration of LP were more seropositive. LP patients of with duration of illness less than 10years were 81.1% positive for Hep C by ELISA. While those with duration more than 10 years were 18.9%. This observation was against the study of Javed et al. and Faiz et al. Such relationship that is the lesser the duration the more is the HCV seropositivity is not reported in literature yet.

CONCLUSION
To detect the undiagnosed cases of hepatitis C virus, all patients of LP must be screened for HCV seropositivity due to the considerable relationship between HCV and LP.

REFERENCES


