ASSOCIATION OF ORAL LICHEN PLANUS WITH HEPATITIS-C AND DIABETES MELLITUS

SYED MURAD ALI SHAH
JAWAD AHMAD KUNDI
MUHAMMAD SHAHID KHAN KHATTAK
MUHAMMAD ILAYAS
FARYAL GUL
SALMAN KHAN

ABSTRACT

The aim of the study is to determine the association of oral lichen planus with hepatitis C and diabetes mellitus.

A retrospective cohort study was carried out at the Department of Oral and Maxillofacial Surgery, Sardar Begum Dental College, Peshawar from January 2011 to July 2015. A total of 34 male and female patients having oral lichen planus were selected with age range 20-60 years and mean age 39.4±15.8 years. Only clinical features were included to diagnose oral lichen planus which was made through the clinical evaluation of patient’s oral cavity by a specialist team at the Department as proposed by van der Meij et al in 2003 based on the WHO definition of oral lichen planus. The data were analyzed through SPSS 22 with significance level of p-value ≤0.05 and chi-square statistics were applied for association.

The results showed that the data was statistically not significant with p-value >0.05 for all diseases having lichen planus and chi-square statistics revealed that no association exist among lichen planus, diabetes mellitus and hepatitis C. This study fails to find any association between oral lichen planus, hepatitis C and diabetes mellitus.

Key Words: Oral Lichen Planus, Hepatitis C, Diabetes Mellitus.

INTRODUCTION

Lichen planus is a mucocutaneous T-cell mediated autoimmune disease in nature where the CD8 T-cell trigger the apoptosis of oral epithelial cells at the basal layer. It is chronic in occurrence with periods of exacerbations and remission. Erasmus Wilson in 1869 introduced lichen planus to the medical world. Lichen planus affect the skin, oral mucosa, nail, genital mucosa and scalp. The causal factors include stress, systemic medications, dental materials, chronic liver disease and hepatitis C virus, genetics and tobacco chewing.

Hepatitis C is caused by a small RNA virus that belongs to the family flaviviridae. The manifestations associated with hepatitis C are sero-negative arthritis, kerato-conjunctivitis sicca, lichen planus, neurological disorders and porphyria cutanea tarda. Diabetes mellitus is recognized as a group of metabolic disorders characterized by chronic hyperglycemia and glucose intolerance, due to insulin deficiency, impaired effectiveness of insulin action or both. Among other manifestations, oral lichen planus have been reported to occur in diabetic patients and is due to prolonged state of immune suppression and acute hyperglycemia which causes alteration in immune responsiveness in diabetic patients. Hepatitis C and diabetes mellitus are major public health concern globally.

Lichen planus has been described in patients with hepatitis C with variable frequency in several studies. Numerous cases of oral lichen planus have been...
Association of oral lichen planus with hepatitis-c and diabetes mellitus

A retrospective study is not well enough to demonstrate the association of oral lichen planus with hepatitis C and diabetes mellitus. Rather a prospective study is needed to evaluate this different geographic areas have non-homogeneity in results. The demography and clinical profile of oral lichen planus show consistency in most of the results with the previous studies while few are not in agreement with study. Oral lichen planus is a chronic disease and it is the role of Oral health care professionals to carefully examine the oral mucosa and skin and when required relevant referral to an appropriate specialist should be carried out. Long term follow is necessary to monitor for symptomatic flare ups and possible malignant transformation.

RESULTS

Fig 1 shows the total number of lichen planus. Hepatitis C is frequent among the diseases. Table 1 revealed the descriptive statistics of lichen planus. The results demonstrates that the p-value >0.05 (0.549) and chi-square statistics is 0.3598 showing that the data was statistically not significant and no apparent association exist among lichen planus and diabetes mellitus and hepatitis C.

DISCUSSION

The association of oral lichen planus was not found in this study (p-value>0.05) supporting the study done by Ali et al and Mahboobi et al in which no association was found. However, Campisi et al in his study showed a weak association between hepatitis C and oral lichen planus which contradict present study.

The association between oral lichen planus and diabetes mellitus was first described in 1966. In study done by Petro-Amerikanou et al, it was suggested that the immune system may play an important role in the appearance of oral lichen planus in patients with type I diabetes mellitus and the prevalence were thus higher in type I diabetes mellitus (>5%) than type II diabetes mellitus (>2%) and type II diabetes mellitus from control group (>1%) which contradicts the current study which has the prevalence of 21%. Ali et al in his study concluded that there is association between oral lichen planus and diabetes mellitus which contradict this study while Van Dis et al showed that there was no apparent association of diabetes and oral lichen planus which supports present study(p-value>0.05).

A retrospective study is not well enough to demonstrate the association of oral lichen planus with hepatitis C and diabetes mellitus. Rather a prospective study is needed to evaluate this different geographic areas have non-homogeneity in results. The demography and clinical profile of oral lichen planus show consistency in most of the results with the previous studies while few are not in agreement with study. Oral lichen planus is a chronic disease and it is the role of Oral health care professionals to carefully examine the oral mucosa and skin and when required relevant referral to an appropriate specialist should be carried out. Long term follow is necessary to monitor for symptomatic flare ups and possible malignant transformation.

CONCLUSION

In this study, it was concluded that oral lichen planus is not significantly associated with hepatitis C and diabetes mellitus (p>0.05). But early diagnosis, treatment and follow up is mandatory for patients with oral lichen planus.
REFERENCES


CONTRIBUTION BY AUTHORS

1. Syed Murad Ali Shah: Principal author / data reviewer/ discussion

2. Jawad Ahmad Kundi: Abstract / co-author

3. Muhammad Shahid Khan Khattak: Introduction / literature review

4. Muhammad Ilyas: Data collection/literature review/results/conclusion/editing

5. Faryal Gul: Data collection

6. Salman Khan: Data collection