CLINICAL AND LABORATORY ASSESMENT OF HERPES SIMPLEX VIRUS TYPE-1 IN SALIVA FROM PATIENTS WITH RECURRENT APHTHOUS ULCERATION

A
THESIS
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Abstract

Background

Herpes simplex virus-1 (HSV-1) is a large enveloped deoxyribonucleic acid (DNA) virus and significant human pathogen. It infects most persons early in life, primarily at mucosal surfaces following exposure to infected secretions, and causes a range of diseases from labialis and stomatitis to blinding keratitis and, rarely, encephalitis. Over 70% of the adult population have neutralizing antibodies to HSV and serve as reservoirs of the virus.

Aims of the study

The aims of the study are to show the prevalence of HSV-1 among patients with recurrent aphthous stomatitis (RAS) and correlate with sex, age and clinical features of patients in comparison with healthy control and to determine the diagnostic role of direct immunofluorescent (IF) and enzyme linked immunosorbant assay (ELISA) for detection of HSV-1 antigen and antibody in saliva.

Materials and Methods

Sixty patients with recurrent aphthous stomatitis and thirty healthy control subjects were included in this study. Saliva samples were taken from all the subjects (patients and healthy control) and examined by direct IF and ELISA assay. Two swabs from patients with oral herpes labialis were considered as a positive control.

Results

The results of our study showed that RAS affect both sexes with a wide age range but mostly in the second and third decades and

comprising middle to upper class professional persons or students, mostly non-smoker and some with a family history of the same disorder. The most commonly affected mucosa are the labial mucosa, buccal mucosa, tongue, and rarely the soft palate and floor of the mouth. Positive IF result was observed in 78.3% in patients subjects and 83.3% in healthy control. While in ELISA, the positive result was found in 55.0% in patients and 76.7% in control subjects.

Conclusion

There were a significant correlation between the IF and ELISA methods. As far as the saliva is regarded as a tansudate of the serum and it contain the same antibodies as serum; although in smaller amounts, so, it can be used as a substance to detect the immunoglobulins because it's easily available and simply examined.