PERIODONTAL AND ORAL DISEASES IN RELATION TO CD4 CELL LEVELS IN PATIENTS WITH HIV/AIDS- AN EPIDEMIOLOGICAL STUDY

By

Dr. Kiran Kosandal

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Dr.Srinath Thakur

Department of Periodontics and Implantology

S.D.M College of Dental Sciences

DHARWAD

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ABSTRACT

Background: Human immunodeficiency virus (HIV) infection is associated with oral manifestations of diagnostics and prognostic importance. HIV infection has been considered a modifier of periodontal disease. With advent of highly active antiretroviral therapy (HAART), there is an anecdotal evidence to suggest effect on periodontal tissues.

Aim: The aim of our study was to report the prevalence of oral manifestations, to investigate the association between periodontal diseases with various parameters (CD4 cell/age/gender/risk group) and to compare the periodontal status of these individuals with antiretroviral therapy (ART) and without ART.

Material and methods: a total of 200 HIV infected patients in the range of 3-64 years, of which 108 were males and 92 were females enrolled in the study.154 were on ART. Oral examination was carried out considering presumptive criteria by EC-Clearinghouse and subjects were grouped according to centre of disease control. Other clinical parameters recorded were probing depth, periodontal disease index and Plaque index. Sociodemographic information and CD4 cell count were obtained after informed consent by patient. Data were analyzed using Chi-square test and Student paired 'T' test where appropriate.

Results: Oral lesions detected most frequently included gingivitis (44.5%), oral candidiasis (24%), and periodontitis (21%) followed by specific form of periodontal disease (12.5%),oral hyperpigmentation (4.5%) and HSV infections (3.5%).Most patients with conventional form of periodontal disease had CD4 cell count <200 cells/mm^3 and were belonged to 20-40 years age group. No statistical significance was observed for clinical parameters among individuals with or without ART.

Conclusion: gingivitis, periodontitis and oral candidiasis were more prevalent in the age group of 20-40 years. Major route of HIV transmission was heterosexual. Conventional periodontal diseases were often seen in individuals with immune depletion. The use of ART does not seem to have an effect on the periodontal status.

Key words: HIV, periodontal disease, CD4 cell count, ECC classification, oral candidiasis, HSV infection, CDC classification, ART.