

Correlation Between HIV/AIDS Stage With Oral Health, Dentition, and Periodontal Status

Authors : Eriselda Simoni, Leonard Simoni, Endri Paparisto, Laureta Flaga, Silvana Bara, Edit Xhajanka, Arjan Harxhi

Abstract : Background: Some pathologies are encountered more often in HIV/ AIDS, such as those with bacterial, fungal, viral, and neoplastic causes, but what has been more noticeable in recent years is the increased and more aggressive manifestation of periodontal disease and oral caries. Our purpose is to investigate the correlation between the HIV/AIDS stage and CD4 level with oral health, dentition, and periodontal status. Materials and Methods: We conducted a prospective observational study that included 35 patients newly diagnosed with HIV/AIDS and underwent an oral examination at the University Dental Clinic in Tirana, Albania, in the period April - July 2024. This study evaluated the basic demographic, laboratory characteristics, oral hygiene, and the presence of oral lesions. The dentition status was assessed with the values DT (decay teeth), FT (filled teeth), and MT (missing teeth) presented as DMFT. The periodontal status was evaluated through a periodontal probe measuring CPI (community periodontal index) and LOA (loss of attachment) as recommended by the WHO Oral Health Assessment Form 2013. The Pearson Correlation Coefficient (r) was used to evaluate the relationship between levels of CD4+ and DMF, CD4+ and CPI, and CD4+ and LOA. The P value ≤ 0.05 was considered statistically significant. Results: 80% of patients included were males with a mean age of 35.8 years. 8.6% of patients were categorized as HIV stage I, 28.6% as stage II, and 62.8% as HIV stage III/AIDS. The mean level value of CD4+ was 266.2 cells/mm³ and the rapport CD4+/ WBC (White Blood Cells) was 15.7%. Most patients (57.2%) used toothbrushes less than 1 time a day. An important negative correlation was found between CD4+ and dentition and periodontal status. A lower level of CD4+ was correlated with a higher DMFT, CPI, and LOA, respectively coefficient (r) for CD4/DMFT = -0.52, p =0.01, (r) for CD4/CPI= - 0.38, p=0.024 and (r) for CD4/LOA= - 0.37, p=0.029. Conclusions: In our study, it was documented that patients with HIV/AIDS had worse oral health, an important negative correlation between CD4+ and dentition and periodontal status. A lower level of CD4+ was correlated with a worse dentition status (higher DMFT), and poor periodontal health (higher CPI and LOA). The monitoring and treatment of oral pathologies can be important in early HIV/AIDS diagnoses and treatment.

Keywords : HIV/AIDS, oral health, dentition, periodontal

Conference Title : ICD 2024 : International Conference on Dentistry

Conference Location : Rome, Italy

Conference Dates : October 10-11, 2024