

## Oral mucosal changes in patients of HIV /AIDS taking AntiRetroviral Therapy (ART) in Pakistan

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HIV/AIDS is a growing epidemic in Pakistan. Oral lesions (OL) are a basic component and considered as a marker of disease progression and immunosuppression<sup>1</sup>. Relevant data is very scanty and there is no cytomorphological study reported yet in our country. Oral smears, from n=35 patients taking antiretroviral therapy (ART), were prepared and examined microscopically using H&E, PAS and Papanicolaou stain. CD4+ lymphocyte count was determined using flow cytometry. Latest plasma viral load levels were recorded from the patient's updated laboratory record and patients were clinically examined and staged according to WHO staging system<sup>2</sup>. Mean age of the patients was 40.71 ± 11.8 years. Most of the patients (77.1%) were males with M:F of 3.4:1. A total of 85.7% patients presented with WHO clinical stage 1, 5.7% each in clinical stage 2 and 3 while 2.9% in clinical stage 4. Oral lesions were present in 63% of the patients with oral pigmentation in 45.7%, chronic periodontitis in 20%, linear gingival erythema in 2.9%, pseudomembranous candidiasis, oral ulcers and xerostomia each in 5.7% cases while mucositis, oral hairy leukoplakia and oral wart each in 2.9% cases. On cytological examination, fungi were detected in 68% smears with Candidiasis being the commonest followed by Cryptococcus. Inflammation was seen in 65.7% smears, micronuclei in 51.4%, nuclear atypia in 37.1% and dysplastic changes in 17.1% (grade 1 in 83.3% and grade 2 in 17%) smears. Frequency of these cytological changes increased with the increasing clinical stage. The mean CD4+ lymphocyte count was 381.20 ± 214 cells/mm<sup>3</sup>. CD4+ lymphocyte count was grouped as <350 cells/mm<sup>3</sup> (Group 1) and >350 cells/mm<sup>3</sup> (Group 2). Group 1 comprised of n=22 while Group 2 had n=13 patients. Most of the oral lesions were seen in CD4+ Group 1 with smears showing fungi (p=0.01) and micronuclei (p=0.03) being significantly associated with this group. Mean viral load was 42025 ± 150920 copies/mm<sup>3</sup> with no significant association with clinicocytological variables. Many practitioners as well as patients are not aware of the importance of oral manifestations including the dysplastic ones, in HIV positive patients taking ART in our country. This study not only highlights the preventive aspects needed to improve the oral health which in turn enhances quality of life as well as compliance to drug therapy in these patients.

### Biography

Saima Qadir is a postgraduate student of M. Phil in Oral Pathology at University of Health Sciences Lahore, Pakistan and has completed her MPhil Research thesis entitled "Oral Mucosal Changes in Patients with HIV/AIDS With or Without Antiretroviral Therapy". She has, on her credit, two publications in reputed journals, one poster and one oral presentation of her research work at the Pakistan Association of Pathology Annual Conference 2013. Earlier, she acquired her Bachelors in Dental Surgery in 2008. She also worked as a junior lecturer in Punjab Medical College, Faisalabad, Pakistan.

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