



## An Overview of HIV on World AIDS Day: A Short Commentary

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Acquired immunodeficiency syndrome (AIDS) is caused by Human immunodeficiency virus (HIV). HIV infections cause a gradual decrease in CD4+ cells and these cells are an indicator of the immune system including the body's natural defence system against pathogens and illness.<sup>1</sup> AIDS is defined as the advanced stage of HIV infection with CD4 cell count less than 200/mm<sup>3</sup>. AIDS is characterized by immunosuppression which can result in several opportunistic infections, tumors, and cancers.

The World Health Organization (WHO) and UNAIDS in 2019 estimated that globally 38 million people were living with HIV, with 1.7 million people newly infected with HIV. WHO also estimated that approximately 6,90,000 people died due to AIDS related illness.<sup>2</sup> According to National AIDS Control Organization (NACO), Ministry of Health and Family Welfare in 2019 estimated 23.49 lakh people living with HIV, with 69.22 thousand people newly infected with HIV. They also estimated 58.96 thousand AIDS related deaths in 2019.<sup>3</sup>

The purpose of World AIDS Day is to educate people about the transmission of HIV. The spread of infection is mostly through sexual contact, infected mother to her baby and blood transfusion. Understanding the success of different approaches for prevention of HIV infection and its treatment is also important. This day is celebrated to give a tribute to the people living with HIV and to the people who sacrificed their life due to this deadly disease. Clinical testing should be done for every individual who are at risk of HIV infection.

Diagnosis of AIDS is presence of HIV infection. The investigation of HIV is done by viral culture, ELISA, Western Blot, and PCR. The patient with positive HIV infection should be started with Antiretroviral treatment to decrease the severity of the infection. The viral load should be checked for patients on ART to

know that any treatment modification is required, or the patient is responding well to the treatment.

Covid 19 has enrolled the entire country with its negative impact on society. HIV remains an important risk factor of Covid 19 infection and there is an increased mortality of HIV infected patients due to Covid 19 infection.<sup>4</sup> People with low CD4 cell counts are at a higher risk of Covid 19 infection.<sup>5</sup> These immunosuppressed patients should be tested for Covid 19 infection and adequate observation, and monitoring should be done to prevent further complications. They should be prioritized to receive vaccination when compared with individuals with no HIV infection.

HIV patients have oral manifestations such as fungal infections, viral infections, bacterial infections, HIV-associated malignancies, and other lesions including sialadenitis and aphthous ulcers.<sup>1</sup> Recent study on the oral manifestations of Covid 19 patients reported taste and smell alterations, xerostomia, aphthous-like lesions, herpetiform/zosteriform lesions, and salivary gland disease.<sup>6</sup> Another study included mucositis, candidiasis, HSV-1 (Herpes simplex virus) infections as symptom of Covid 19 infection.<sup>7</sup> Further studies should be carried in India to assess HIV patients with oral symptoms of covid 19 infection to improve the quality of life of HIV patients.

People should be advised on safer sex using condoms and to avoid sharing of injections to prevent transmitting HIV to uninfected people. It is important to prevent transmission of virus from mother to child during pregnancy and delivery. Pre exposure prophylaxis medicine is required for people who have regular exposure to HIV patients by choice or profession. Post exposure prophylaxis medication is required when the exposure of HIV is immediate and should always be given within 72 hours.



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## CONCLUSION

This short commentary will help in decreasing the HIV infection and its progression to AIDS. Changing the attitude and behaviour of people toward this epidemic is important to decrease the spread of infection. Testing should be advised with the start of Anti-retroviral drugs once the patient is positive for HIV infection. Funding resources to the organisations working for HIV patients will improve the health status of these patients.

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