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## HIV Patients are more Prone to COVID-19: Fact or Myth?

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The World Health Organization has declared COrona VIrus Disease (COVID-19) a pandemic. It has been raging unabatedly in about 210 countries and the concomitant lockdown has devastated the global economy [1].

In the absence of a proven vaccine, the most effective means of saving oneself from this malady has a strong natural immunity. Immunity, as we know, is defined as the body's ability to combat pathogens. Hence prima facie it follows that someone with poor immunity is at greater risk of being infected with COVID-19. This editorial shall focus on one such group i.e. the patients suffering from HIV-AIDS. Patients with very less CD4 cell count (<200) or invaded by opportunistic organisms or people who are not on anti HIV (anti retroviral) treatment may be at greatest risk. Additionally, elderly HIV patients (50 years or above) whose condition is aggravated by other health issues like diabetes, chronic respiratory disease, cardiovascular disease, and hypertension may fall prey to the coronavirus very easily. Patients with HIV with an active or recent infection of tuberculosis and consequently having damaged lungs may be much more susceptible to COVID-19 [2]. But unfortunately, there are no evidence to prove that certainly these patients are more prone. However, what we can say with certainty is that if they are taking regular anti HIV treatment, AIDS patients have to be equally vigilant and fastidious as non HIV infected individuals. Anti-retrovirals are under high consideration these days to treat or an effort to treat COVID-19. A study in the New England Journal of Medicine has highlighted the probable utility of lopinavir in combination with ritonavir. Trials are going on across the globe to establish the fact that some of the drugs used in HIV therapy could combat coronavirus disease. Some drugs meriting graver consideration are lopinavir along with ritonavir or with rit-

\* Address correspondence to this author at the Department of Pharmaceutical Chemistry, ISF College of Pharmacy, GT Road, Moga, Punjab, India; Tel: +91-8057952150; E-mail: pvchawla@gmail.com onavir and interferon beta. The viral growth could be arrested by targeting active viral enzymes including integrases and proteases thus putting a period on the spread of the virus. The virion could not be active without the involvement of protease enzyme that leads to cleavage of polyprotein complex. Hence if we can successfully inhibit protease enzyme, as is done in anti HIV therapy, the immature virus particle can be paralysed. Protease inhibitor anti -HIV drugs like lopinavir, and ritonavir, asunaprevir, indinavir have shown positive results in docking studies and can be used after clinical trials to treat this dreadful disease [3, 4].

In a nutshell, we can say that whether the HIV-AIDS status of a person shall have any bearing on his/her chances of contracting, COVID-19 is yet to be ascertained and without further research nothing concrete can be said. Yet we must recall the old adage that prevention is better than cure and hence AIDS sufferers ought to exercise sufficient prudence and sagacity in the global fight against this unprecedented affliction [5 - 8].

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