

Is only reduction in CD4 Count responsible for Secondary Infections seen in the HIV patients ?

Rajeev Shah & Aarjav Shah

Institute of Nuclear Medicine and Allied Sciences, India

Abstract

Background:- The significant mean CD4 count fall has been observed both in HIV positive patients as well as even with the patients of severe tuberculosis without HIV infections.. But it has been observed that generally, the patients with tuberculosis do not seem to have secondary or opportunistic microbial infections, while in contrast, the HIV patients with same mean CD4 count suffer from plenty of opportunistic or secondary infections. **Aim:** Emphasizing the pivotal role of CD4 count in TB/HIV patients in maintaining their immune system effective (by maintaining CD4 count) and thus decreasing MDR/XDR, morbidity and mortality among these patients. **Calculating average mean CD4 count for Indian scenario in cART era. Discussing and suggesting new scope of treating HIV patients for prevention of secondary infections. Material and methods:** All the 961 HIV infected patients early morning sputa were screened for AFB and few of the samples were even cultured on LJ medium. All patients' CD4 count were also evaluated by flow cytometry method within one week of sputa collection. Seven other published work of HIV/TB patients were analyzed in relation to CD4 count. Moreover other five published research on CD4 in TB+ve/HIV-ve patients were also discussed in this article. **Results:** Out of 961 patients with HIV/RTI , 308(32.06%) found positive for tuberculosis with mean CD4 count found to be 198.5 and 105.9 cells/ μ l for pulmonary TB and for extra-pulmonary TB respectively in present study. The average mean CD4 count from seven research studies from India were found to be 169.75 and 145.3 cells/ μ l for pulmonary and extra- pulmonary TB respectively, in TB/HIV co-infected patients on cART. Brenda et al.(1997) and other four found that in advanced/sever TB but HIV-negative patients mean CD4 count found to be 341+116. It means in severe tuberculosis patients CD4 count may reduce up to 198 cells/ μ l but in TB patients, But the difference between HIV and TB patients found by researchers was the CD4:CD8 ratio which always almost maintained in TB patients only but not in HIV patients. Even some researchers like MA Hauman, Fiske CT et al,(2015) could not find increased intracellular bacterial infections (ICBIs) in only TB patients(HIV-ve).

Received: January 10, 2022; **Accepted:** January 14, 2022; **Published:** January 20, 2022

Biography

Dr Rahul Hajare was fortunate enough to be recognized for hard work with scholarships from India Council of Medical Research Ministry of Health Research New Delhi scholarship including a centenary post doc National AIDS Research Institute Pune that is presented by Respected Dr. R.S.Paranjape, Immunologist and World Renowned Scientist., Retired

Director & Scientist 'G' National AIDS Research Institute Pune. His initial journey was a quest to heal with a different kind of highly education and did a sponsorship at the Ana Laboratory in Mumbai. After completing his training, he was privileged to practice in KLE College of Pharmacy Bangalore as a board certified Secretary KLE society Belgavi, .he was work to formerly reputed Pune University and services to be recognized by special Investigation team (SIT) for work in education