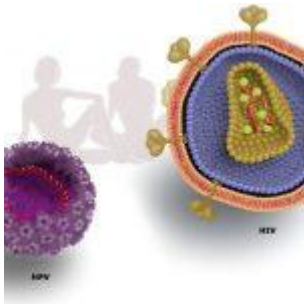


HPV & HIV infection are associated with high levels of activated CD4 T cells in the cervix uteri



Cervical cancer, caused by oncogenic high risk human papilloma viruses (HR-HPV), is among the most prevalent cancers in women living globally, including in Sub-Saharan Africa. HIV infection is linked to a substantially increased risk for cervical cancer, even in women living with HIV who initiated antiretroviral therapy.

To dissect the effect of HIV and HPV on cervical immunity, Mbuya et al. analysed the expression of activation and memory markers on systemic and cervical T cells in relation to HIV infection, HPV infection and/or disease in a cohort of women attending the national cervical cancer screening programme in Tanzania by flow cytometry.

They found reduced numbers of mucosal CD4 T cells in women living with HIV, especially with co-prevalent HPV infection. They speculate that this, in synergy with the observed increased activation of cervical T cells in women living with HIV, could lead to the greater risk for and faster progression to cervical cancer in women living with HIV. The increased risk of HIV infection in women with HPV infection and HPV-associated lesions, on the other hand, might further be explained by a similar increase of activated cervical CD4 T

cells observed in the study in women with HPV infection and HPV-associated lesions.

Journal Article: Mbuya et al., 2020. [Depletion and activation of mucosal CD4 T cells in HIV infected women with HPV-associated lesions of the cervix uteri.](#) PLoS ONE

Summary by Kathrin Held