

PubMed Results

Item 1 of 1

1. AIDS Res Hum Retroviruses. 2009 Dec;25(12):1307-11.

Short communication: oxidative stress in HIV-infected individuals: a cross-sectional study.[Wanchu A](#), [Rana SV](#), [Pallikkuth S](#), [Sachdeva RK](#).Department of Internal Medicine and Gastroenterology, PGIMER, Chandigarh, India.
awanchu@yahoo.com**Abstract**

HIV infection increases the oxidative stress process, and antiretroviral combination therapy increases protein oxidation and preexistent oxidative stress. The latter induces production of reactive oxygen species. Lipid peroxidation (LPO) is a means of determining oxidative stress. There is also a deficiency of glutathione in HIV infection. Persistent oxidative load leads to an accelerated rate of consumption of glutathione (GSH). This study measured LPO and GSH levels in plasma of HIV-infected individuals with or without therapy and compared these with healthy controls. One hundred HIV-infected individuals and 30 healthy controls were included in the study. LPO and GSH levels were measured in plasma according to previously described methods. The mean level of LPO in HIV-infected individuals was 0.7 +/- 0.1 micromol/ml (range, 0.5-0.9 micromol/ml), whereas the mean LPO level in controls was 0.3 +/- 0.1 micromol/ml (range, 0.2-0.4 micromol/ml). The mean LPO levels were significantly higher in HIV-infected individuals as compared to healthy controls (p value <0.0001). The mean GSH level in HIV-infected individuals was 0.06 +/- 0.01 micromol/ml (range, 0.03-0.08). The mean GSH level in healthy controls was 0.09 +/- 0.01 micromol/ml (range, 0.05-0.1). The mean glutathione level in HIV-infected individuals was significantly lower in compared to healthy controls (p value < 0.0001). There was a significant positive correlation between absolute CD4 cells and GSH levels ($\rho = 0.182$, $p = 0.045$). There is increased oxidative stress in HIV-infected patients. Whether supplementation with antioxidants will reduce this oxidative stress is still unknown.

PMID: 20001519 [PubMed - indexed for MEDLINE]