ABSTRACT

HIV/AIDS is the one of global health problem which today has not found the vaccine to prevent this virus. The CD4 cell counted was the most widely used as index to assess the immunity of HIV-infected patients. One of the affected factors of malnutrition is a disturbance of immune function, so it will decrease the nutritional status and accelerated progression of HIV/AIDS. The purpose of this research was to study the correlation between changes of nutritional patient status with change of CD4 cell counted of HIV/AIDS.

The study was conducted at the Clinic for Infectious Diseases at Intermediate Care unit or called UPIPI on Dr. Soetomo Hospital. Cohort retrospective method was used to collect the data which is secondary data from medical records of infected patients. The population in this study was all patients which is since 2010 receiving antiretroviral (ART) therapy. The sample was adult patients who received therapy since 2010 and regularly check their CD4 count for three times every six months with 4 times observations. Total sampling method was used to get samples. Patient characteristics, height, weight, and CD4 count were included in collecting the data. CD4 counts were based on the results from laboratory inspection. Nutrition status was measured by BMI method and statistical test use for this research was Spearman correlation test.

The result showed that average change in CD4 cell count and nutritional status have increased every 6 months and there was no correlation between the changes in nutritional status with changes in CD4 cell count after 6 months ($p = 0.208$), month 12 ($p = 0.305$) and 18 months ($p = 0.405$).

The conclusion of this study is there is no correlation between the changes in nutritional status with changes in CD4 count after three times therapy from 6, 12 until 18 months. The suggestion of this research is to provide information and counsel the patients to check their CD4 regularly in order to be evaluated by a medical team and further research using primary data.

Keywords: *CD4 cells count, HIV/AIDS, weight, BMI.*