

# THE ASSOCIATION BETWEEN ABNORMAL ANAL PAP SMEARS AND HPV-16/18 VIRAL LOADS IN A COHORT OF HIV-POSITIVE MEN AND WOMEN

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# Why We Did this Study

- HPV infection is the most commonly sexually transmitted disease in the world
- HPV infection has been shown to be the cause of ano- genital pre-cancers and cancers, as well as a type of throat cancer called oropharynx cancer
- People with HIV-infection are at much higher risk than HIV-negative individuals for all HPV-related cancers.
- In particular, the rates of anal cancer among HIV-positive men who have sex with men (MSM) has been reported to be nearly 100 times higher than those who are HIV-negative, and nearly 10 times higher among HIV-positive women.
- The best ways of screening HIV-positive people for anal cancer is not known

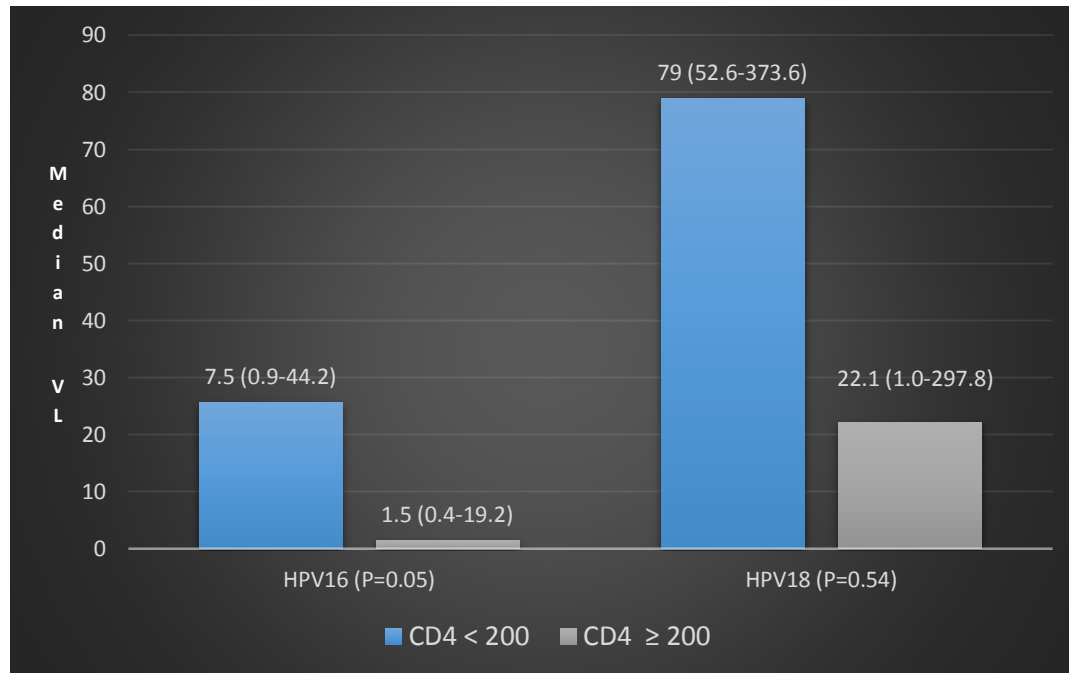
# What We Did

- HIV-positive individuals, age 18 years or older were recruited over the study period of 2007 to 2011. The patients were either HAART naïve or off HAART for 6 months.
- We collected clinical information, and anal swabs from the patients
- The anal swabs were sent for studies to determine if pre-cancerous cells were detected, and to determine what the HPV-16 and -18 viral loads were

# What We Found

- Median age: 38
- Gender: 83% male, 17% women
- Race: 54% African American, 26% Caucasian, 20% Hispanic
- Anal Dysplasia: None: 36%, Abnormal: 64%
- HPV-16 and -18 viral loads were also highly associated with abnormal anal cytology

HPV-16/-18 viral Load by CD4 count



# What Our Results Mean and Why this Matters

- The rate of anal precancer in our population is substantial
- Precancer detected on anal swab is associated with low CD4 count, and high HPV-16 viral loads
- HPV-16, -and -18 viral loads appear to be potential biomarkers for individuals at high risk of anal dysplasia
- Further studies determining the best screening methods for anal cancer in HIV-positive people are necessary.

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