Increased Burden of HPV-related Anal Potentially Precancerous Lesions in HIV+ Women

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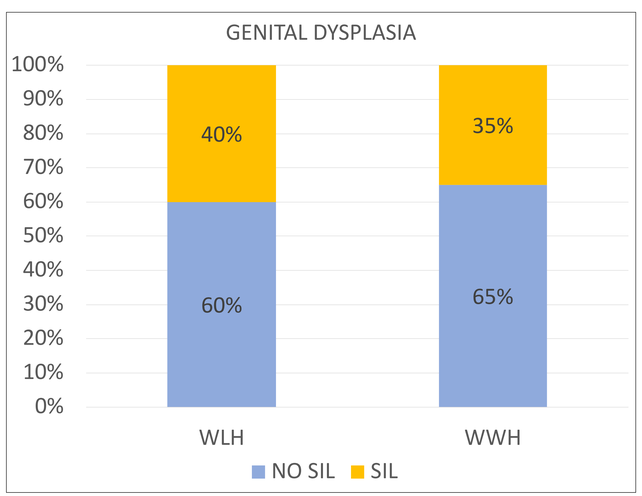
BACKGROUND

- Women living with HIV (WLH) show increased risk of HPV related anal cancer
- WLH are routinely screened to prevent HPV related cervical cancer through research and treatment of potentially precancerous lesions, but screening for the prevention of HPV related anal cancer lacks in this populaton
- In the present study we aimed to compare prevalence of anal HPV infection and anal dysplasia in WLH and women without HIV infection (WWH)

METHODS

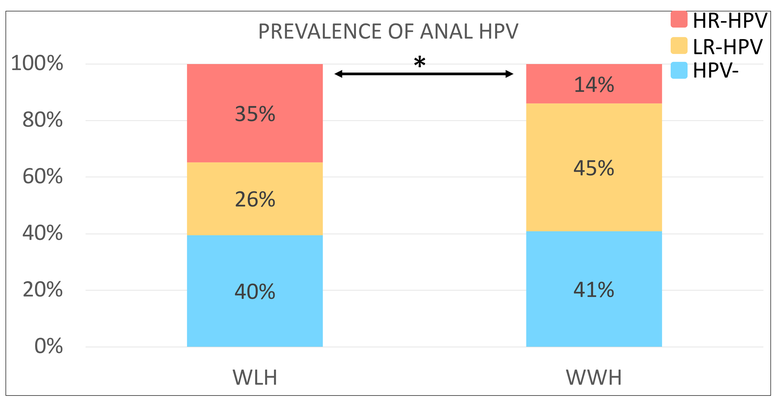
- Since genital HSIL is a risk factor for anal dysplasia, women with previous or current cervical, vaginal or vulvar HSIL were excluded
- 74 WWH and 26 WLH were enrolled in the present study
- All participants underwent anal HPV DNA test, anal cytology and high resolution anoscopy (HRA)
- Data regarding genital HPV DNA and genital dysplasia (cytology and/or histology) were also collected
- None of participants completed HPV vaccination course prior to enrollment.



Despite similar prevalence of ***HR-HPV anal infection***, ***WLH*** are ***more prone*** to develop ***severe anal dysplasia*** than WWH

RESULTS

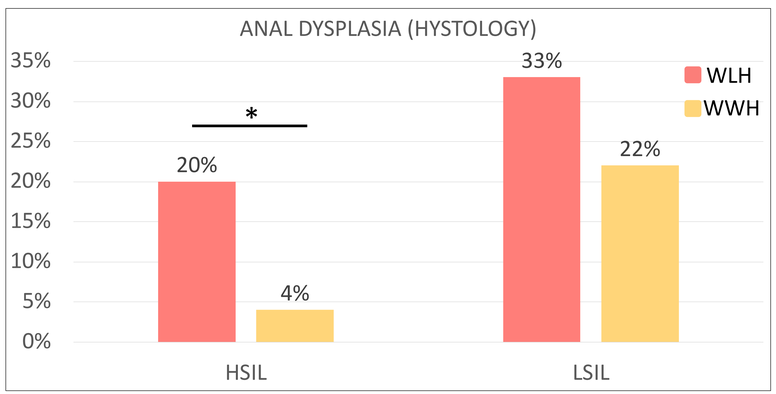
- Median age of participants was 45 years in both groups
- All WLH showed HIV RNA <37 copies/ml, median CD4 count was 741 cell/µL (869-624)
- WLH showed lower prevalence of genital high-risk HPV (HR-HPV) (33% vs. 78%; *p*=0.01) and similar prevalence of low-risk HPV (LR-HPV) (40% vs. 22%; *p*=0.67) compared to WWH
- Screening for cervical dysplasia showed LSIL in 40% of WLH and of 35% WWH



- Prevalence of anal HR-HPV was higher among WLH than WWH (34% vs. 14%; *p*=0.049)
- Prevalence of LR-HPV was similar between WLH and WWH (26% vs. 45%; *p*=0.1)
- Similar proportion of WLH and WWH showed negative anal HPV DNA (40% vs. 41%; *p*=0.8)
- Cytological LSIL was observed in 40% of WLH and 12% of WWH (*p*=0.017), normal anal cytology was found in 54% of WLH and 86% WWH (*p*=0.01)
- All participants underwent HRA, biopsies were performed in 53% of WLH and 51% of WWH, according to clinical evidences
- Biopsy proven HSIL was more frequently observed in WLH than WWH (20% vs. 4%; *p*=0.01)
- Prevalence of LSIL was similar between the two groups (33% vs. 22%; *p*=0.23)
- HIV infection was associated with increased risk for histology proven anal HSIL (odds ratio 5.6; 95% CI 1.2-25.6)
- Receptive anal intercourse and smoke were not associated to increased risk of HSIL

CONCLUSIONS

- WLH show increased burden of HPV related anal dysplasia and potentially precancerous anal lesions in respect to WWH
- In WLH, despite similar prevalence of anal and genital HR-HPV, anal canal seems more prone to develop severe dysplasia
- WLH should be considered as a high-risk population and therefore should be candidate for screening for the prevention of anal cancer



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