Background Bacterial vaginosis (BV) increases the risk of many sexually transmitted infections. The co-occurrence of persistent human papillomavirus (HPV) and BV increases the risk of developing cervical cancer. This study aims to investigate the co-occurrence of HPV and BV among young women in the U.S.

Methods Stored vaginal swabs were acquired from a previously completed clinical trial. The kinds of bacteria present in the samples were identified by classifying 16S rRNA gene sequences in each sample using high-throughput pyrosequencing. HPV genotyping was performed using quantitative polymerase chain reaction using TaqMan probes in a customized plate (Thermo Fisher Scientific; Waltham, Massachusetts). BV was classified using Nugent Scores of Gram stain.

Results Eighty reproductive age African American (AA) women were included in the analysis. The point prevalence of HR-HPV was 48.1% (95% CI: 37.5–59%). The mean age of the participants was 21.4 years (SD: 2.11), 81.2% graduated high school. Prior antibiotic use was low (3.8%), and 75% of women had not been treated for BV during their lifetime. Among those who were previously treated for BV, 60% were treated five or more times (60%). According to Nugent Scores, 70% had BV, 13.7% had intermediate and 16.3% had healthy vaginal flora. TV was diagnosed among 11.1% (95% CI: 4–8%) of the women. Prior antibiotic use was low (3.8%), and 75% of women had not been treated for BV during their lifetime. Among those who were previously treated for BV, 60% were treated five or more times. Douching was reported by 49% of the sample. 35% of TV cases had concurrent BV, while 11.1% of TV cases also had intermediate vaginal flora. There were no associations with prior antibiotic use, hormonal contraception, douching or prior treatment.

Conclusion Young African American women of reproductive age found to have abnormal vaginal flora should be screened for Trichomonas vaginalis infection.

Disclosure No significant relationships.

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