BACTERIAL VAGINOSIS AND HIGH-RISK HUMAN PAPILLOMAVIRUS COINFECTION AMONG AFRICAN AMERICAN WOMEN IN THE UNITED STATES

Purnima Madhivanan*, 1Makella Coudray, 2Daniel Ruiz-Perez, 2Brett Colbert, 2Karl Krupp, 3Hansi Kumar, 5Kalai Mathee, 2Giri Narasimhan, 5Florida International University, Epidemiology, Miami, USA; 5Florida International University, Bioinformatics Research Group, Miami, USA; 5Florida International University, Department of Biological Sciences, College of Arts and Sciences, Miami, USA; 5Florida International University, Department of Health Promotion and Disease Prevention, Robert Stempel College of Public Health, Miami, USA; 5Florida International University, Biomolecular Sciences Institute, Miami, USA

Background While the etiology of bacterial vaginosis (BV) is still not known, it is described as a polymicrobial condition that lacks lactic-acid producing Lactobacillus species with an overgrowth of anaerobic bacteria and elevated vaginal pH. This study aims to evaluate the relationship between BV assessed by Nugent scoring of vaginal Gram stain and Trichomonas vaginalis infection among African American young women in the U.S.

Methods Stored vaginal swabs from a previously completed clinical trial were acquired for this study. The kinds of bacteria present in the samples were identified by classifying 16S rRNA gene sequences using high-throughput pyrosequencing. Vaginal smears were also categorized by the Nugent Gram stain score (0–3, normal; 4–6, intermediate state; 7–10, BV). TV genotyping was performed using quantitative polymerase chain reaction, performed 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 HrHPV was 48.1% (95% CI: 37–59%). The mean age of the participants was 21.4 years (SD: 2.11 years). Most (81.2%) women had graduated high school. 70% (95% CI: 60%–80%) 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. 55% 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.

CO-OCCURRENCE OF BACTERIAL VAGINOSIS AND TRICHOMONAS VAGINALIS AMONG YOUNG AFRICAN AMERICAN WOMEN

Purnima Madhivanan*, 1Makella Coudray, 2Daniel Ruiz-Perez, 2Brett Colbert, 2Karl Krupp, 3Hansi Kumar, 5Kalai Mathee, 2Giri Narasimhan, 5Florida International University, Epidemiology, Miami, USA; 5Florida International University, Bioinformatics Research Group, Miami, USA; 5Florida International University, Department of Biological Sciences, College of Arts and Sciences, Miami, USA; 5Florida International University, Department of Health Promotion and Disease Prevention, Robert Stempel College of Public Health, Miami, USA; 5Florida International University, Biomolecular Sciences Institute, Miami, USA

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

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 using high-throughput pyrosequencing. HPV genotyping was performed using quantitative polymerase chain reaction, performed 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 HrHPV was 48.1% (95% CI: 37–59%). The mean age of the participants was 21.4 years (SD: 2.11 years). Most (81.2%) women had graduated high school. 70% (95% CI: 60%–80%) 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. 55% 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.

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