

**64 Incident Bacterial Vaginosis in a Community-Based Cohort of Women**

Muzny C<sup>1</sup>, Aaron K<sup>1</sup>, Tamhane A<sup>2</sup>, Long D<sup>3</sup>,  
Van Gerwen O<sup>1</sup>, Graves K<sup>1</sup>, Eastlund I<sup>1</sup>, Elnaggar J<sup>4</sup>,  
Cerca N<sup>5</sup>, Taylor C<sup>4</sup>

<sup>1</sup>University of Alabama at Birmingham, Division of Infectious Diseases,

<sup>2</sup>University of Alabama at Birmingham, Division of Nephrology, <sup>3</sup>University of Alabama at Birmingham School of Public Health, Department of Biostatistics, <sup>4</sup>Louisiana State University Health Sciences Center, Department of Microbiology, Immunology, and Parasitology, <sup>5</sup>Minho University, Centre of Biological Engineering, Laboratory of Research in Biofilms Rosário Oliveira

**OBJECTIVES:** In an ongoing community-based BV pathogenesis study, we evaluated time to incident BV (iBV) as well as select characteristics of women with this infection.

**METHODS:** Non-pregnant women ages 18-45 with normal vaginal microbiota (no Amsel criteria, normal Nugent score), no antibiotic use in the past 14 days, no concurrent STIs, and a current male sexual partner were followed for 9 weeks. Participants completed an enrollment questionnaire and self-collected twice daily vaginal specimens for Gram stain and future vaginal microbiota analysis. iBV was defined as a Nugent score of 7-10 on  $\geq 4$  consecutive vaginal specimens.

**RESULTS:** Between November 2020-March 2023, 278 women were screened; 68 enrolled. Fourteen were disqualified due to a second baseline Nugent score  $>3$  (n=8), an STI diagnosis (n=5), or COVID-19 (n=1); 54 were followed prospectively. Mean age was 29.1 years (SD=8.3); 53.7% and 33.3% were Caucasian and African American, respectively. Median follow-up was 58 days (IQR 21-63 days). The probability of developing iBV at 30 days was 12.8% (95% CI: 5.9%-26.5%) and 16.3% (95% CI: 7.9%-31.9%) at day 62 (incidence rate 0.29/100 person-days). Mean age was similar among groups. Women with iBV were of varying races; all were non-Hispanic/Latino. The majority of women with iBV had a masters/doctoral degree (57.1%), currently used contraceptives (57.1%), never smoked (85.7%), never douched (85.7%), and denied a lifetime BV or STI history (57.1% and 57.1%, respectively).

**CONCLUSION:** iBV was less common in this cohort than in previous studies. This study is ongoing and future analysis will examine predictors of iBV.

**DISCLOSURE:** Any of the authors act as a consultant, employee or shareholder of an industry for: BioNTech, Abbott, Visby

**Table 1.** Select characteristics of women who have sex with men participating in a BV pathogenesis study, stratified by iBV status (n=54)\*

Characteristic	iBV (n=7)	No iBV (n=47)
Age, years (mean SD)	29.9 (9.2)	29.0 (8.3)
Race		
Caucasian	3 (42.9%)	26 (55.3%)
African American	2 (28.6%)	16 (34.0%)
Asian	2 (28.6%)	3 (6.4%)
Ethnicity		
Non-Hispanic/Latino	7 (100%)	42 (89.4%)
Hispanic/Latino	0 (0%)	5 (10.6%)
Education		
High school/GED	1 (14.3%)	1 (14.3%)
Some college/Associate degree	1 (14.3%)	17 (36.2%)
Bachelor degree	1 (14.3%)	12 (25.5%)
Masters/Doctoral degree	4 (57.1%)	17 (36.2%)
Tobacco use		
Current	0 (0%)	1 (2.1%)
Past	1 (14.3%)	7 (14.9%)
Never	6 (85.7%)	38 (80.9%)
History of sex with women (lifetime)		
Yes	1 (14.3%)	4 (8.5%)
No	6 (85.7%)	43 (91.5%)
History of STI (lifetime)		
Yes	3 (42.9%)	24 (51.1%)
No	4 (57.1%)	23 (48.9%)
History of BV (lifetime)		
Yes	3 (42.9%)	17 (36.2%)
No	4 (57.1%)	30 (63.8%)
Contraception use		
Current	4 (57.1%)	25 (53.2%)
Past	2 (28.6%)	15 (31.9%)
Never	1 (14.3%)	7 (14.9%)
Douching history at enrollment		
Never	6 (85.7%)	37 (78.7%)
>3 months	1 (14.3%)	10 (21.3%)

\*Data presented as n (column %) unless otherwise specified; data missing for tobacco use (n=1).

