Periodic Presumptive Treatment for Vaginal Infections May Reduce the Incidence of Sexually Transmitted Bacterial Infections.

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Abstract

BACKGROUND:

Bacterial vaginosis (BV) may increase women's susceptibility to sexually transmitted infections (STIs). In a randomized trial of periodic presumptive treatment (PPT) to reduce vaginal infections, we observed a significant reduction in BV. We further assessed the intervention effect on incident Chlamydia trachomatis, Neisseria gonorrhoeae, and Mycoplasma genitalium infection.

METHODS:

Nonpregnant, human immunodeficiency virus-uninfected women from the United States and Kenya received intravaginal metronidazole (750 mg) plus miconazole (200 mg) or placebo for 5 consecutive nights each month for 12 months. Genital fluid specimens were collected every other month. Poisson regression models were used to assess the intervention effect on STI acquisition.

RESULTS:

Of 234 women enrolled, 221 had specimens available for analysis. Incidence of any bacterial STI (C. trachomatis, N. gonorrhoeae, or M. genitalium infection) was lower in the intervention arm, compared with the placebo arm (incidence rate ratio [IRR], 0.54; 95% confidence interval [CI], .32-.91). When assessed individually, reductions in STI incidences were similar but not statistically significant (IRRs, 0.50 [95% confidence interval {CI}, .20-1.23] for C. trachomatis infection, 0.56 [95% CI, .19-1.67] for N. gonorrhoeae infection, and 0.66 [95% CI, .38-1.15] for M. genitalium infection).

CONCLUSIONS:

In addition to reducing BV, this PPT intervention may also reduce the risk of bacterial STI among women. Because BV is highly prevalent, often persists, and frequently recurs after treatment, interventions that reduce BV over extended periods could play a role in decreasing STI incidence globally.
KEYWORDS:

Chlamydia trachomatis; Mycoplasma genitalium; Neisseria gonorrhoeae; bacterial vaginosis; periodic presumptive treatment; vaginal health interventions.