**Bacterial Vaginosis and Treatment of Sexual Partners**

**QUESTION**

Should partners of patients with recurrent bacterial vaginosis be treated?

**SEARCH STRATEGY**

A MEDLINE search was performed (1966 to present, limited to the English language) using the MeSH term “vaginosis, bacterial” combined with the keywords “partner,” “male,” or “sex.” Bibliographies of resulting articles were also searched for relevant papers. The Cochrane Databases were searched for relevant titles under the topic “bacterial vaginosis.”

**DETAILS**

Bacterial vaginosis (BV) is a prevalent vaginal infection in which the normal vaginal flora is altered to contain large numbers of anaerobes as well as *Gardnerella vaginalis* and other species. Bacterial vaginosis usually presents as a symptomatic malodorous discharge. It is generally diagnosed by the presence of 3 of the following 4 signs: (1) presence of clue cells; (2) vaginal fluid pH greater than 4.5; (3) fishy odor arising from discharge before or after adding 10% potassium hydroxide (“whiff test”); and (4) homogeneous noninflammatory discharge adherent to vaginal walls.1 Current Centers for Disease Control and Prevention (Atlanta, Ga) recommendations for treatment include oral metronidazole, 500 mg twice daily for 7 days; 0.75% metronidazole vaginal gel, twice daily for 5 days; and 2% clindamycin vaginal cream, once daily for 7 days. Alternative options are oral metronidazole, a 2-g single dose, and oral clindamycin, 300 mg twice daily for 7 days.1

Although controversial, there is some evidence for sexual transmission of the microorganisms associated with BV. Coupled with the estimate that BV carries a recurrence rate as high as 30%,2 this invokes the question of whether treatment of the male sex partner influences recurrence of BV.

Our literature search revealed 6 randomized placebo-controlled trials addressing this question.3–8 All trials were clinic-based, employed the diagnostic criteria for BV listed above, and excluded pregnant patients and those with coexistent vaginal infections. Of the trials, Moi et al3 and Colli et al6 provided the longest follow-up periods. In a double-blind study, Moi and colleagues randomized 241 couples after which the female participants were given two 2-g doses of metronidazole, 2 days apart. Their male partners were given either this same medication regimen or a placebo. In an intention-to-treat analysis performed at 12 weeks’ follow-up, they found partner treatment to have no effect on recurrence of symptoms or clinical BV. Colli and colleagues also performed a double-blind study in which 139 females received a 7-day course of 2% clindamycin vaginal cream. Their partners were randomized to receive either a placebo or a 7-day course of oral clindamycin. Again, an intention-to-treat analysis at 12 weeks’ follow-up revealed no difference between the groups in recurrence of BV.

Other trials of shorter duration have shown similar results. In double-blind trials, Vejtorp et al5 and Vutya-vanich et al6 found partner treatment to make no difference in 5- and 4-week recurrence rates, respectively. Similarly, in a single-blind trial, Swedberg et al7 found partner treatment to have no effect on 3-week recurrence rates. Various metronidazole or tinidazole regimens were used in these 3 studies (though not all were in keeping with current Centers for Disease Control and Prevention recommended regimens).

Only one study reported a statistically significant benefit of partner treatment on BV outcomes. Mengel et al8 conducted an 8-week double-blind trial designed primarily to determine whether a single dose of metronidazole is as effective for BV as 7-day therapy. Additionally, they analyzed the effect of single-dose metronidazole treatment for partners on outcomes. After randomizing a total of 98 couples, the authors found a statistically significant improvement in patients’ symptoms at 8-week follow-up when partners were also treated, but no difference at 2- and 5-week follow-up. They also reported a statistically significant improvement in cure rates at 2 weeks after treatment but, unlike the other studies, this was determined by Gram stain rather than wet-mount criteria. There was no difference in 2-week cure rates by wet mount criteria in this study. There was also no difference in recurrence rates at the 5- and 8-week follow-ups, although this was judged by Gram stain criteria only.

Conclusions from this last study must be drawn cautiously, as it had several problem areas. The design was complex and multiple outcome comparisons were made.
Because the outcome data were presented only as graphs, making numerical comparisons is difficult. Also, unless patients had recurrent symptoms, they were examined only at 2-week follow-up. Five- and 8-week follow-up consisted of telephone interviews for symptoms and Gram stain evaluation of self-collected vaginal fluid, which was mailed to the study group. Gram staining as a diagnostic method in BV is at best controversial and is not commonly used in clinical practice to diagnose BV. The improvement in telephone-reported symptoms at 8 weeks was not reflected in a decreased number of return visits for recurrent symptoms.

The majority of the evidence, therefore, supports the conclusion that in the general BV population, partner treatment confers no benefit on recurrence rates for up to 12 weeks after initial treatment. This conclusion has held across 5 studies using a variety of treatment regimens for both the patient and the partner. Two of these 5 studies\(^4,7\) use a treatment regimen for females in accordance with current Centers for Disease Control and Prevention guidelines,\(^1\) so the results should be generalizable to what is currently practiced in most settings.

One could argue that the above trials do not answer the question at hand, since they do not analyze a specifically recurrent BV cohort. However, the largest of the above trials reported 20% to 30% recurrence rates. Given such high rates, the fact that there was not even a trend toward decreased recurrence rates makes it unlikely that a study of a specifically recurrent cohort would show different results.

Despite this lack of evidence supporting it, several textbooks in various fields recommend a trial of partner treatment for recurrent BV.\(^5,9,10\) The risks and benefits must be fully weighed before making such a recommendation, however. Though treatment of the male partner carries few physiologic adverse effects, there may be emotional adverse effects to implying that BV is a sexually transmitted disease.

**BOTTOM LINE**

There is no evidence that treating male partners of patients with recurrent BV improves cure or recurrence rates. Although many textbooks recommend considering partner treatment, the emotional ramifications of implying that BV is sexually transmitted should be taken into consideration before implementing a treatment of no proven benefit.

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