



Vaginal vitamin C tablets effective for bacterial vaginosis

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Efficacy of vitamin C vaginal tablets in the treatment of bacterial vaginosis: a randomised, double blind, placebo controlled clinical trial.

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Aim

To evaluate the efficacy and safety of vaginally administered vitamin C in women with bacterial vaginosis.

Design

Randomised, double-blind, placebo-controlled trial with two parallel arms.

Setting

Outpatient departments across 15 sites in Germany.

Participants

The trial recruited 277 women, aged 18 years or older, presenting with bacterial vaginosis and at least three of the following signs: white discharge that smoothly coats the vaginal walls, pH of vaginal fluid >4.5, a fishy odour of vaginal discharge before or after addition of 10% KOH, or the presence of clue cells on microscopic examination.

Intervention

Participants administered silicon-coated vitamin C (250 mg) or placebo tablets, vaginally, once daily for 6 days.

Main outcome measures

The primary endpoint was the bacterial vaginosis cure rate; defined as the recovery of all inclusion criteria.

Main results

'In the intention-to-treat (ITT) population, cure was achieved by 55.3% of patients with Vit. C ($n=141$) and by 25.7% of patients with placebo ($n=136$). The between-group difference was 29.6% ($P<0.001$).'

Authors' conclusion

'The results support an effective and safe use of silicon-coated vitamin C vaginal tablets in the management of bacterial vaginosis.'

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Commentary

Bacterial vaginosis affects up to one-third of post-menopausal women, often recurs and is usually treated with topical antibiotics. In terms of complementary and alternative therapies, a Cochrane review did not find probiotics to be a useful treatment. Previous studies have suggested that vaginal vitamin C may be a useful treatment, with a possible mechanism being that it increases local acidification, thereby making up for the decrease in hydrogen peroxide that often results from a reduction in the number of lactobacilli present.

This study was a well-powered, well reported, double-blind, parallel group, RCT. The strengths of the study were the placebo-controlled, double-blind design, the solid criteria for the diagnosis of the disease [i.e. the presence of at least three of four signs of bacterial vaginosis (Amsel criteria)], and the presence of few weaknesses. As well as efficacy, the study also demonstrated the safety of the

treatment, with few adverse events reported and little difference observed between the active and placebo groups.

Based on the results of this study, vitamin C can be recommended for bacterial vaginosis, particularly for women in the first trimester of pregnancy for whom some topical antibiotics are contra-indicated. Future studies could assess whether a combination of vitamin C and topical antibiotics further increases the cure rate; head-to-head studies could also compare cure rates with conventional treatment.

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Conflict of interest None declared.



Authors' reply

Women of fertile age are more exposed than post-menopausal women to the risk of being affected by bacterial vaginosis; this is likely due to a higher frequency of sexual activity and a greater number of sexual partners. Pregnant women are at most risk due to the increased amount of glycogen available for bacte-

rial growth. Use of vaginal vitamin C during pregnancy could be considered a safe therapeutic tool for mother and baby.

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