The role of vitamin C in the treatment of the common cold

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Letters to the Editor

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Lifestyle Modifications, Tubal Flushing to Increase Fertility

TO THE EDITOR: I read with great interest the article, “Infertility, in American Family Physician.” Although the information was extensive and well referenced, I would like to make three additional points about the current understanding and treatment of infertility.

My first point is the importance of highlighting the two categories of infertility. Primary infertility is the failure to achieve pregnancy during one year of frequent, unprotected intercourse. Secondary infertility is defined as couples who have previously been pregnant at least once, but have been unable to achieve another pregnancy.

Epidemiologic studies indicate cigarette smoking, abnormal body mass index, and excessive caffeine and alcohol consumption reduce fertility in the female partner. Couples with unexplained infertility should be informed of a possible relationship between cigarette smoking and infertility and advised to stop smoking. The female partner should be counseled to try to achieve a body mass index between 20 and 27 kg per m², reduce caffeine intake to no more than 250 mg daily, and reduce alcohol intake to no more than four drinks per week. These changes may enhance natural and assisted conception.

My last point is the therapeutic role of tubal flushing. Several studies have reported increased pregnancy rates after diagnostic hysterosalpingography. A Cochrane review of 11 randomized trials found that tubal flushing with oil-soluble media versus no intervention was associated with a significant increase in pregnancy rate (odds ratio = 3.30; 95% confidence interval, 2.00 to 5.43).

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REFERENCES

EDITOR’S NOTE: This letter was sent to the authors of “Infertility,” who declined to reply.

The Role of Vitamin C in the Treatment of the Common Cold

TO THE EDITOR: The authors of “Treatment of the Common Cold,” in American Family Physician, stated that vitamin C is not recommended for active treatment of the common cold. Their recommendation was based on a Cochrane review that I coauthored.

The Cochrane review was limited to placebo-controlled trials in which at least 0.2 g of vitamin C was used per day. Most of these trials examined vitamin C administration as regular supplementation and provided strong evidence that vitamin C shortens the duration of colds and alleviates its symptoms. Children benefited more than adults. The data also suggested that high doses of vitamin C are more beneficial than low doses.

Stratification of the regular supplementation trials in children by vitamin C dosage shows a tendency for dose dependency. Four trials, using 0.20 to 0.75 g of vitamin C per day, found an average reduction of 7 percent in common cold duration (95% confidence interval [CI], −1.9 to 5). Six trials with 1 g of vitamin C per day found an average reduction of 18 percent (95% CI, −32 to −3), and two trials using 2 g of vitamin C per day found an average reduction of 25 percent (95% CI, −50 to 0.1). Therefore, the 13.6 percent estimate for common cold reduction was not statistically significant.

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calculated in the Cochrane review\textsuperscript{2}, based on all 12 trials with children who received at least 0.2 g of vitamin C per day, may underestimate the effect of high doses.

Although the regular supplementation trials demonstrate that vitamin C has physiologic effects on the common cold, taking supplements throughout the year to slightly shorten colds does not seem reasonable. Consequently, therapeutic vitamin C supplementation soon after the onset of cold symptoms seems more rational. Few trials have been conducted, and results are not consistent; methodologic variation partially explains the divergence in results.\textsuperscript{2,3,6}

The only trial that compared regular and therapeutic supplementation was conducted in adults.\textsuperscript{3} The researchers administered 3 g of vitamin C per day and found no difference between regular and therapeutic supplementation.\textsuperscript{3,5} Furthermore, they found that 6 g of vitamin C per day was associated with twice as much benefit as the 3 g per day dose.\textsuperscript{3,5} Because no trials have been conducted in children, our review concluded that such trials are warranted.\textsuperscript{2}

Although there is no direct evidence to show that therapeutic vitamin C would affect colds in children, and therapeutic trials with adults are only partly positive,\textsuperscript{2,6} it may still be reasonable to suggest testing vitamin C to treat colds. The results of a controlled trial are an average for a group. Vitamin C is inexpensive and safe, and its effect on an individual may be much more (or much less) than the benefit suggested by a single trial, or by the pooled results of a meta-analysis.\textsuperscript{6}

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REFERENCES