

## Chronic Rhinosinusitis May Be an Immune Disorder

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**Melissa Schorr**

March 24, 2004 (San Francisco) — Chronic rhinosinusitis, potentially an immune disorder triggered by airborne fungus, was effectively treated with antifungal medications in a small randomized clinical trial, researchers said here Tuesday at the annual meeting of the American Academy of Allergy, Asthma & Immunology.

"We demonstrated an improvement using antifungals in an objective finding for people with chronic rhinosinusitis," lead author David A. Sherris, MD, interim chair of the department of otolaryngology at the University of Buffalo in New York, told Medscape. Dr. Sherris conducted the research while at the Mayo Clinic.

The researchers hypothesized that airborne fungi initiate an immune reaction in the sinuses in certain people sensitive to chronic sinusitis.

In a randomized, placebo-controlled, double-blind study, 30 adult patients with chronic rhinosinusitis were either given 20 mL of amphotericin B, a fungicide, or a placebo squirted into the nasal cavity twice daily. Data were analyzed for 24 patients.

Researchers performed computed tomography (CT) of patients at baseline and at six months, and they conducted endoscopic examinations for inflammation at baseline, three, and six months.

Based on CT findings, the researchers found that patients receiving the antifungal had an average reduction of 8.8% in the inflammatory mucosal thickening compared with an increase of 2.5% in those receiving placebo. Similarly, 70% of the patients receiving amphotericin had an improvement in endoscopy scores, while the placebo group showed no change.

The treatment group also had significant reductions of intranasal mucus levels of interleukin-5 compared with the placebo group.

Two patients suffered an allergic reaction to the medication, with intranasal swelling.

This study indicates a need for a multicenter trial using antifungals for chronic sinusitis, Dr. Sherris said. "We advocate a larger group of patients and hopefully trials leading to [Food and Drug Administration] FDA approval of a product."

"I treat patients already with off-label use," Dr. Sherris said. "I think there's enough evidence. You'll see FDA trials within the next couple of years."

"If you believe these fungi are important in causing an immune response that promotes chronic sinusitis, this could potentially be exciting therapy," said Allen Adinoff, MD, session moderator and a clinical professor at the University of Colorado in Aurora. "A trial would be reasonable to consider. This is still controversial. We need to see where the dust settles."

The research was supported by grants from the National Institutes of Health and the Mayo Foundation for Education and Research.

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*Reviewed by Gary D. Vogin, MD*

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