

Cure to Cancer? The Cold?

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Off Topic

The science backs this new treatment for eliminating the common cold in short periods of time. Researchers gave a thumbs-up to one of the most eagerly awaited cancer drugs -- a genetically engineered protein that may prevent tumors from developing a blood supply and thriving. The drug, called endostatin, interferes with the ability of small tumors to recruit cells to build blood vessels. Without those blood vessels, the cancer can't grow or spread to other parts of the body...But while the studies showed that endostatin was not harmful and did have some cancer-fighting activity, doctors cautioned that even in the best scenarios, endostatin will not reach the nation's pharmacies or hospitals for at least eight years. The preliminary studies were announced here at a meeting of cancer experts.

On all fronts, endostatin succeeded, the researchers say, but most importantly, in the area of safety. "If you are going to have a drug that has to be taken for long periods of time -- and that is probably going to be the case with endostatin -- it cannot have serious side effects," says James Thomas, MD, assistant professor of medicine at the University of Wisconsin Medical School in Madison.

No significant side effects were seen in any of the 61 patients in the three studies, two of them sponsored by the National Cancer Institute and the third sponsored by drug manufacturer EntreMed of Rockville, Md. "There were a couple of cases of rash that went away," Thomas said. There also were a few cases of infection, which were cleared with antibiotics.

As far as fighting cancer goes, one of the Houston patients, a 58-year-old man with malignant melanoma, experienced some reductions in skin tumors. And another patient achieved more than a 50% reduction in a head and neck tumor. Researchers from one of the other studies also reported two minor responses to the drug. Researchers will tweak existing studies, and new ones will get under way. In fact, the University of Amsterdam will begin a study next week in which patients will wear an infusion pump that continuously delivers the drug.

All the patients in the endostatin study were suffering from end-stage cancer, says James Abbruzzese, MD, professor of medicine at the University of Texas M.D. Anderson Cancer Center in Houston. They all had progressive disease, and none were on any other active medication. All had taken one to 10 previous regimens of anticancer drugs, but the therapies failed to stop disease.

Cure to the Common Cold?

Just in time for the start of the sniffing season, a zinc-based nasal gel has been shown to ease the cold bug's bite. Zicam shortened the duration of the common cold by 75 percent in a study released Tuesday.

ZICAM, an over-the-counter gel spray, knocked a week off the cold's stay and reduced the severity of symptoms, according to results published in the October edition of the Ear, Nose and Throat Journal. Currently available in many drugstores for \$9 to \$12 a bottle, the gel contains ionic zinc, which has been tested as an oral cold remedy with mixed results, ranging from no effect to cutting the cold's duration by nearly half.

Sabrina Novick-Sobel, an associate professor of chemistry at Hofstra University in Hempstead,

N.Y., who has studied zinc's effect on the cold, said the mixed findings in trials of zinc lozenges are a result of varying formulations.

She said some zinc lozenges include ingredients such as citric acid added to make them taste better, but which can chemically interfere with the activity of zinc ions, rendering the lozenge ineffective. But the nasal gel appears to be a good formulation, she said. "Zinc lozenges have been shown to reduce cold duration by about three or four days, [Zicam] showed up to a seven-day reduction," said lead study author Dr. Michael Hirt, a clinical professor at the University of California, Los Angeles. Novick-Sobel said it makes sense that the nasal gel would work better than zinc lozenges. "The cold virus is most concentrated in the nose. There's also the post-nasal drip effect where it gets into the throat. It's a more targeted approach," she said. While there's now good evidence that zinc is effective at battling the cold, no one has really proven how it works, Hirt noted. Novick-Sobel theorized that zinc ions fill in the cold virus' binding site so that it can't attach to the body's cells. Nearly 66 million cases of the common cold are reported each year in the United States. They are caused by viruses, most commonly rhinoviruses, that are spread from one person to another by sneezing, coughing or direct contact.

STUDY DETAILS

Hirt and colleagues recruited 213 adult volunteers in the Los Angeles area who had at least three of nine cold symptoms - cough, headache, hoarseness, muscle ache, drainage, nasal congestion, scratchy throat, sore throat or sneezing - for 24 hours or less. Half were given Zicam and half a placebo nasal gel. The gels were doled out in a double-blind fashion, meaning neither the researchers nor the patients knew who was getting which formulation. The volunteers were instructed to use the gel every four hours for as long as they experienced symptoms and were provided with diaries to make twice-daily entries about the severity of their symptoms. The patients who received Zicam were free of cold symptoms an average of 2.3 days after starting the regimen, while the placebo recipients weren't cold-free for nine days. Additionally, the Zicam recipients reported less severe symptoms. The participants experienced no side effects, except for a slight tingling or burning sensation, which was reported by both groups. This is an advantage over zinc lozenges, which have caused nausea in some patients due to the metallic taste, Hirt said. The research was funded by Zicam's manufacturer, Gel-Tech, and the results confirm the findings of an earlier, smaller study done by company scientists. Novick-Sobel said the next step is to study the zinc gel on children. "Kids are the greatest virus carriers in the world, and the ingredients would be safe for them as far as I can tell."

Dr. David Pomeroy, a clinical assistant professor of family medicine at the University of Washington in Seattle, said the downside of zinc cold therapies is that they generally must be taken within 48 hours of symptom onset. "Cold symptoms can just be a scratchy throat a day and a half before the stuffy nose starts, and if you wait too late, you can be pushing the 48-hour timeframe," he said. Pomeroy added that while zinc is generally safe, pregnant women should avoid it.

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