Incredible IV Vitamin C

You're probably familiar with vitamin C's antioxidant properties since it is one of the body's most important free-radical fighters. But this vitamin is far more than just an antioxidant. It's also involved in a number of enzymatic and metabolic reactions, including the synthesis of the neurotransmitter norepinephrine, the formation of bile, and the production of collagen.

Inadequate levels of vitamin C are associated with scurvy, heart disease, cataracts, diabetic complications, asthma attacks, and more. Furthermore, it's highly protective when taken as a supplement. It boosts immune function, increases resistance to infection, and protects against a wide range of diseases.

What I want to concentrate on here, however, is an entirely different and largely unknown role of vitamin C, and that is its ability—when administered in very high doses by intravenous (IV) infusions—to kill cancer cells.

Evolution of a Therapy

Vitamin C's effects on cancer have been known since the late 1970s, when Linus Pauling, PhD, and Ewan Cameron, MD, published a case report about 100 terminal cancer patients who had been treated with high-dose IV and oral vitamin C. The patients who received this therapy survived an average of 300 days longer than a control group of patients with similar disease status, and 22 percent of them lived longer than one year, compared to just 0.4 percent in the control group.

Based on these results, Dr. Pauling convinced the National Cancer Institute (NCI) to evaluate this therapy in a clinical trial of patients with advanced cancer. But when the results were published, vitamin C showed no therapeutic value. Why? Because rather than using IV and oral vitamin C as Drs. Pauling and Cameron had done, the NCI used oral vitamin C alone. Of course the study failed—it's impossible to achieve the requisite blood levels with oral doses.

The body tightly controls levels of this vitamin by limiting intestinal absorption. Intravenous administration bypasses this control mechanism, and blood levels rise in a dose-dependent manner. For example, 10 g of IV vitamin C raises blood levels 25 times higher than the same dose taken orally, and this increases up to 70-fold as doses get larger. Nevertheless, the flawed study gave conventional doctors an excuse to shun vitamin C, and to this day they dredge it up as proof that vitamin C is ineffective as a cancer therapy.

But IV vitamin C didn't go away, thanks in large part to Hugh Riordan, MD, a maverick physician who learned about it from Dr. Pauling. After decades of successfully treating patients at his clinic in Wichita, Kansas, Dr. Riordan was able to garner the interest of Mark Levine, MD, a researcher at the National Institutes of Health who has done a great deal of work on the mechanisms of vitamin C in the treatment of cancer.

How Vitamin C Kills Cancer

It was Dr. Levine's team that figured out exactly how vitamin C kills cancer. Vitamin C interacts with iron and other metals in the extracellular fluid (as opposed to within the cells) to create hydrogen peroxide. Hydrogen peroxide plays a vital signaling role in the immune system, marshalling white blood cells to sites of injury or disease. In high concentrations, it does much more. Hydrogen peroxide damages the DNA and mitochondria of aberrant cells, shuts down their energy supply, and kills them outright. Best of all—and unlike virtually all conventional chemotherapy drugs that destroy cancer cells—it is selectively toxic. No matter how high the concentration, vitamin C does not harm healthy cells.

Lab studies reveal that this therapy is effective against many types of cancer, including lung, brain, colon, breast, pancreatic, and ovarian. Animal studies show that when human cancers are grafted into animals, high-dose IV vitamin C decreases tumor size by 41 to 53 percent "in diverse cancer types known for both their aggressive growth and limited treatment options." Additionally, numerous scrupulously documented case reports have been written up in medical journals.

A 49-year-old man with bladder cancer had the primary tumor and multiple "satellite" tumors removed, but further evaluation revealed cancer invasion into other areas of the bladder. Rather than undergoing chemotherapy and radiotherapy, he opted for IV vitamin C and nutritional supplements. Nine years after his initial diagnosis, he remains in good health.

A 66-year-old woman diagnosed with large B-cell lymphoma had a sizable paraspinal mass in her lower back that had invaded her muscle and bone. She underwent five weeks of radiation but elected to be treated with IV vitamin C and supplements rather than chemotherapy. She's been healthy and free of lymphoma for 10 years.

A 51-year-old woman afflicted with renal cell carcinoma had her left kidney removed. Six months later, CT scans showed metastasis to the lungs. Refusing conventional therapy, she was treated with IV vitamin C twice a week plus other complementary

therapies. A repeat scan after seven months was normal, except for a possible scar in the left lung.

These are just a few examples of the many case reports of patients who had been given a poor prognosis by their conventional physicians but thrived with this alternative treatment.

The Future of IV Vitamin C

Dr. Riordan passed away in 2005, but his clinic in Wichita is still thriving. Jeanne Drisko, MD, a protégée of Dr. Riordan's, picked up the baton. Dr. Drisko is currently collaborating with Dr. Levine as well as conducting FDA-controlled clinical trials on IV vitamin C for the treatment of ovarian and gynecological cancers.

I am not suggesting that IV vitamin C is a cure-all for cancer. I do, however, believe that it is one of the brightest lights on the horizon. Vitamin C may also be used in conjunction with other alternative and conventional therapies—Dr. Drisko reports that when given on the same day as chemo, the two have synergistic effects. At Whitaker Wellness, we use IV vitamin C along with a therapeutic diet, an aggressive nutritional supplement program, hyperbaric oxygen therapy, low-dose naltrexone, and in some cases, acupuncture and reflexology. (I'll tell you more about all of these in future issues.)

I want to make it clear that for political and legal reasons, we do not treat cancer at the Whitaker Wellness Institute. But we do treat patients *with* cancer. Our goal is to boost nutritional status, enhance immune function, and unleash the body's innate ability to heal itself. By doing so, we engender the overall health of our patients, improve their quality of life, and in many cases positively affect disease outcomes.

Recommendations:

- IV vitamin C is safe and well tolerated. The ideal treatment schedule is twice a week or more for very aggressive tumors. Regular infusions are necessary but they may be tapered off as the patient improves.
- To learn more about IV vitamin C and cancer, visit Dr. Drisko's Web site, *integrativemed.kumc.edu*.
- To locate a doctor in your area who administers IV vitamin C, visit *acam.org*. To make an appointment for this therapy at Dr. Drisko's clinic, which is part of the University of Kansas Medical Center, call (913) 588-6208. To schedule treatment at the Whitaker Wellness Institute, call (800) 488-1500.

References

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Happy holidays to you and those you love,

Julian Whitaker MD

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Sue and Ron are playing a game.

Sue says: A huge gray mammal with a trunk.
Ron says: A black and orange cat found in India.
Sue says: A large animal with a horn on its nose.
Ron says: A smelly black and white mammal.
Sue says: A jumping marsupial that lives in Australia.

Which of the following does Ron say next?

1) A long-necked, flightless bird.
2) A slow-moving reptile with a shell.
3) A large African cat with a mane.

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