Why intravenous vitamin therapies are a mainstay of integrative practice

This week, as you read this column, I'll be presenting a course on intravenous (IV) therapies at the annual scientific conference of the American College for Advancement in Medicine (ACAM). This marks the 30th year that I've been providing IV therapies in my practice, and I find them an invaluable tool in rendering specialized care to my often challenging patients.

Why intravenous vitamins when you can simply take them by mouth? Some foes of integrative medicine allege that giving vitamins by IV is simply a money-maker, and largely a scam.

But why, then, when patients are faced with serious infections, are they given powerful intravenous antibiotics instead of oral pills? Similarly, when patients have serious crises with asthma, colitis or multiple sclerosis, they are given fastacting intravenous steroids rather than less potent, slower oral versions. And chemotherapy is almost invariably given IV to achieve the high concentrations needed for killing cancer cells.

IV administration of vitamins, minerals and nutraceutical compounds are the Big Guns of nutrition. They are intended to bypass barriers to absorption and supercharge the body with therapeutic levels of healing nutrients.

We sometimes use them when patients are nutritionally-depleted because they're too sick to eat or handle oral supplements, as in ulcerative colitis, cancer, or extreme nausea of pregnancy. But often, even when patients can eat properly and take oral supplements, IVs are used to achieve higher-than-normal blood levels of certain nutrients.

Why is more sometimes better? One of the fundamental principles of chemistry is the Law of Mass Action. When applied to biological systems, this means that if there is a weak link in a biochemical chain, we can "push" reactions along, much the way we force water out of a narrowed pipe by giving the spigot a few extra turns and applying more hydraulic pressure. The result is often improved energy, better wound healing, improved mental focus, enhanced circulation, boosted immunity, relief from headaches, reversal of asthma attacks, eradication of infections, banished pain of fibromyalgia, elimination of menopausal hot flashes, and even shrinkage of tumors.

I first learned about an IV therapy called the "Myers Cocktail" in the early 80s. Developed by Baltimore integrative pioneer John Myers, MD, it is a concoction of magnesium, B vitamins, and vitamin C. When Myers died in the mid-80s, I encountered a strange phenomenon: a bunch of mostly middle-aged ladies—former patients of Dr. Myers—began showing up for weekly treatments at my office. So valuable did they consider their IVs that they would hop the train from Baltimore in the morning, make the 3 1/2 hour trip to NY, get their shot, and then head back home in time for dinner. That stream of customers soon dried up as other holistic practitioners like Baltimore-based Dr. Alan Gaby began to embrace Dr. Myers' work and offered the therapy nearer to home.

(An interesting footnote to this 80s story is that one of my crosstown colleagues, the late Dr. Robert Giller, was renowned among the celebrity crowd of that era for offering magical restorative vitamin "pushes"; he successfully ministered to the hard-partying revelers of Studio 54 until his untimely death in the 90s. Now, decades later, vitamin IVs have again come into vogue as après-party remedies,

offered from specially-equipped mobile "hangover buses" in places like Las Vegas.) Of special interest is the vitamin C story. Originally proposed as a treatment for cancer by Nobel Laureate Linus Pauling and his sidekick Dr. Ewan Cameron, high-dose vitamin C was said to be debunked by a clinical trial undertaken at the Mayo Clinic by the famed quack-buster, Dr. Charles Moertel.

Trouble was, in that supposedly definitive trial, the very sickest cancer patients were picked as guinea pigs only after their cancers had failed to respond to multiple rounds of chemo and radiation. To make matters worse, these subjects were given just 10 grams of ORAL vitamin C per day-hardly a test of the efficacy of high-dose IV vitamin C that bypasses the digestive tract and achieves high tissue concentrations impossible to achieve with oral dosing.

Ultimately, Charles Moertel died-of cancer-but vitamin C cancer research was set back for decades. That is, until recently.

While integrative doctors like myself continued through the years to offer high dose IV vitamin C to cancer patients, incontrovertible proof of its efficacy was lacking. Chelation—another allegedly "bogus" IV therapy embraced by physicians of my ilk—achieved its breakthrough and legitimization in 2013, with the TACT Study.

Recently it was revealed that cancer cells previously resistant to chemotherapy could be inhibited by high doses of vitamin C-achievable only through intravenous administration. Hailed as a potential breakthrough in cancer treatment, it will usher in clinical trials where patients with resistant cancers will receive vitamin C "drips" several days a week for months at a time.

Studies demonstrate that vitamin C, when given in sufficiently high doses, acts like a "smart bomb" to selectively target cancer cells. It is taken up by cancer cells, where, unlike low-dose vitamin C (which is an antioxidant), it delivers a prooxidant punch sufficient to overwhelm cancer cells' defenses. Regular cells remain unscathed because they retain their innate protection against free radicals, making IV vitamin C a safe adjunct to standard treatments. It can even be administered alongside chemotherapy.

It appears that, finally, IV therapies will emerge from the shadows and assume their rightful place alongside standard medical therapies for a wide variety of challenging conditions. For my part, I'll never regret my decision thirty years ago to stray from the path of mainstream medicine and embrace alternatives that now appear to be gaining hard-won legitimacy.

(You can listen to an *Intelligent Medicine* podcast with more details on this subject by clicking here.)