Correspondence

Nature and Vitamin C: An Engineer's View

I am a retired chemical engineer who enjoys reading medical papers and books. Recently while re-reading a 15 year old text on vitamin C,[1] I was struck by three facts whose value is almost universally ignored. An engineer, by force of reason, would draw a conclusion which could challenge the medical world.

Here are the facts, as I derived them from the book, *The Healing Factor-Vitamin C Against Disease* by Irwin Stone.[2]

1. Throughout the world of mammals, all with the exception of man, the primates, and the guinea pig synthesize ascorbic acid (vitamin C) in the liver and it is discharged directly into the bloodstream. In nature, the exceptions must obtain the necessary ascorbic acid from what they eat. Like oxygen, it is essential to life.

2. Any stress or trauma will act to reduce the available ascorbic acid. The degree of reduction will be directly proportional to the degree of severity of the trauma.

3. In nature, under such stress, the system of the typical mammal will automatically signal the liver to produce more ascorbic acid to meet the challenge of depletion and to restore the integrity of the immune system. Man has no automatic response to meet this problem. The individual of exception will, of necessity, have to take remedial action, or the depletion of ascorbic acid may result in an easily overwhelmed immune system.

The literature is replete with advice of the proper dosage of vitamin C to prevent disease. It varies from 60-100 mg per day, which has the support of many conventional doctors convinced that the real need for this vitamin is to prevent scurvy; to 4,000 or more mg per day believed by many practitioners to be approximately equal (on a comparative weight basis) to the amount synthesized by typical mammals who have this ability.

But this is not the full story. From the above set of facts, what may be more effective than an agreed upon daily dosage, is an attempt to "mimic nature." One may choose any basic daily dosage that one considers to be protective. Thereafter, when an ongoing stressful activity or a traumatic event occurs, one then immediately counters the expected depletion of ascorbic acid by taking more vitamin C. Admittedly, this could result, as one critic claims, in some expensive urine, but the healthy life will be worth the low cost of the extra vitamin C. Acting upon the obvious conclusion to the three basic facts of ascorbic acid, the best individual use of vitamin C to achieve optimum health is to "mimic nature."

Does the same conclusion offer any advantage to medial practice? Not being a doctor, I cannot claim evidence from practice or research programs; but I can raise pertinent questions concerning one case with which I am familiar. In this jounal,[3] I authored an article describing the events from the first recognition of a kidney tumor of a patient to his death four years later. It may be instructive to examine some of those events in relation to the three basic facts previously presented.

After tests revealed a tumor on one kidney, surgery removed it with the kidney and established that it was malignant. The surgeon (urologist) stated that the patient was free and clear of all cancer. He also ordered the patient to take no vitamin C supplements because vitamin C could cause kidney stones and with just one kidney that would be too much of a risk. (As if kidney stones and cancer are medically equal).

I doubt that anyone would disagree that major surgery, in fact, any surgery, is a very traumatic event to the body. According to our basic facts, the patient's immune system was depleted of vitamin C and thus open to attack with no appropriate defense.

In less than three years, the tumor re-

turned in the same space from which the first one was removed. It was massive and life threatening.

Would the outcome have been different if the patient had had vitamin C before, during, and after surgery? A typical mammal would have been much better prepared. The patient was admitted to a major cancer hospital. After thorough testing, and diagnosis, a chemotherapy regimen was established: 24 hours every day of two chemicals to kill the tumor.

One cannot argue the necessity of killing the tumor. Having done so, should the oncologist have also recognized the necessity of rebuilding the immune system? A typical mammal would have done it automatically. After approximately six months, the patient was returned to the hospital for the surgical procedure to remove the tumor and repair the damage it had caused. The patient underwent three surgeries, ten hours to explore and plan; ten more hours, after a day of open abdomen, to do it; four more hours three weeks later to suture a bleeding ulcer on a vein in the duodenum. Severe infection set in, requiring powerful antibiotics to control it. Nonetheless, the ulcer continued to seep. This resulted in a clot at the opening to the duodenum, so that no nutrients could pass from the stomach.

At this time, the surgeons stated that they had no other options. In other words, the patient's body had to recover on its own. Slowly, the kidney failed, the lungs could not perform, the healthy liver became malignant; in four weeks the heart gave out. The body could not overcome the damage done to it.

Throughout all this time with the surgeons, the body was under extreme stress. Each event of surgery[3] and antibiotics probably had an accumulative effect on destroying the immune system. Would a typical mammal have been able to withstand the onslaught? It would have had a "built-in" rebound effect after each event.

The evidence indicates that ascorbic acid has a special role in the life system created by nature for mammals. We who have lost the ability to synthesize this valuable molecule should learn to emulate or mimic nature. It is vital to our good health.

There are times, with the vagaries of nature or by accident, that the body becomes damaged or diseased and needs professional help to become well again. It is then the doctor's or other health care professional's responsibility to use or explore all resources available to restore the patient's well-being.

The basic resource is nature, which must be copied in man's case in order to achieve by effort what nature has designed. Every physician should consider this rule as basic in prescribing treatment. It is especially important that every surgeon apply the knowledge. All surgeries are traumatic–they differ only in degree. The amount of supplementation of vitamin C should be in accordance with the severity of the trauma. One trained in medicine may not agree with the assertions of this letter but an engineer would reply, "The evidence itself is conclusive. Why isn't it commonly utilized?"

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References

1. Irwin Stone: *The Healing Factor, "Vitamin C" Against Disease,* New York. Perigree Books, The Putnam Publishing Group, 1982
2. Ibid.
3. Martin Zwelling: Pride, prejudice and vitamin C, *J Orthomol Med,* 1994; 9/3: 140-144.