

Intravenous Vitamin C in a Terminal Cancer Patient

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In October, 1995 the author (NR) was completing a clinical rotation with a physician in a rural community as part of his Physician Assistant Training. His responsibilities included covering the Emergency Room in the hospital and helping the town physician at his three clinics. Emergency Room call was shared with a medical student and the hospital and clinic rotation was for five weeks. A week into the training, a home health care agency nurse visited the clinic and asked if the medical student or the author knew of a treatment that could help a "terminal" breast cancer patient with pain control. She said the patient had cancer for several years and the latest bone scan showed that the cancer had metastasized to "nearly every bone in her skeleton." She was particularly worried about pain from a metastatic lesion in the the patient's left upper arm. The patient was taking I.V. morphine for pain and needed sublingual morphine to cope with pain associated with getting up and going to the bathroom.

The medical student (who planned on a career in pain management and anesthesia), enthusiastically described a nerve block procedure that would relieve the pain but, "unfortunately," loss of function of the arm, as well. Information about the experiences at The Center with the control of metastatic bone pain using high doses of intravenous vitamin C was given to the nurse. She was also furnished with references describing the usefulness of Vitamin C in helping cancer patients. One article, from the present authors, (NR, JAJ, HDR) described the preferential toxicity of vitamin C toward tumor cells, and presented

evidence listing the plasma concentrations of vitamin C that would be beneficial as a preferential cytotoxic agent in humans.

The nurse's reaction was less than enthusiastic. She said she would ask the patient if she was interested and would also ask the physician if he would be willing to try something like vitamin C. Since the doses suggested in the article were in excess of 100 grams intravenous per day, and the RDA for vitamin C is 60 mg per day, a positive reply was not expected. Some physicians and health care workers believe (wrongly) that any dose over two grams intravenously will either kill you or make you very ill by inducing an acidotic state. As fate would have it, this patient visited the clinic the next day complaining of a painful, swollen, left arm. A Doppler venogram revealed both subclavian veins to be blocked by blood clots. She was admitted to the hospital and started on anticoagulant therapy. Many staff did not think she would leave the hospital alive.

During clinical rounds, the patient said that she had read the paper on vitamin C and was anxious to try the I.V. C therapy because it offered her some hope. Also, the Home Health nurse said that she and the physician had read the article and were were willing to try the I.V. vitamin C treatments. The physician later said he was enthusiastic to try something that could actually have a positive effect on the pain and disease processes. He also said that he wanted to clear the blood clots before starting the vitamin C treatment. He was concerned that if an embolism occurred and the patient died, it would be blamed on the I.V. vitamin C treatment (obviously an enlightened physician). He did start the patient on oral vitamin C, 250 mg per day, to prevent scurvy, a common occurrence in disseminated meta-

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static disease. The patient was treated one time with Activase R to clear the clots. An arterial blood sample was drawn from the patient's wrist shortly after the anticoagulant therapy. This resulted in extensive subcutaneous bleeding with bruising of the entire arm, and the site subsequently became infected, swollen, and hot to the touch. She continued to receive small doses of I.V. and oral anticoagulant therapy, antibiotic therapy and oral vitamin C. The infection had not cleared within a week, probably due to poor circulation in the arm and depressed immune system of the patient. The next week, the patient's physician visited Wichita and spoke to H Riordan at The Center. Riordan furnished him with vitamin C to use in the I.V. treatment.

After two weeks, the patient was strong enough to take high doses of I.V. vitamin C. Her physician ordered 30 grams of vitamin C given I.V. in Ringer's Lactate solution. One of the nurses said that she had never heard of such a high dose and she would not administer it "because it would kill the patient." She was assured by the author (NR) that patients at The Center and other clinical sites had been given 100 grams and more of I.V. C without any ill effects, and that he had personally taken 60 grams I.V. with no side effects. The nurse was still not convinced. To prove the safety of the I.V. C, the author started an I.V. infusion of 30 grams of vitamin C in Ringer's Lactate on himself. He was seated next to the nurse with the I.V. pole between them. The infusion lasted an hour and all the time the nurse was saying "you are going to die" and wanted witnesses to the fact that she would not be held responsible. As expected, there were no side effects and after further observation for ill effects by the head nurse for several hours, she finally agreed to give the I.V. vitamin C to the patient.

The patient received 30 grams I.V. vitamin C on the first day, 40 the next day and 50 the following day. After the third dose her right arm was completely with-

out swelling and the swelling in her left arm was greatly decreased. Most notably, the infection in her left hand began to resolve, and she did not need to take sublingual morphine for pain. All, including the physician, nurses and patient were very impressed. The physician ordered additional shipments of vitamin C to continue the infusions. Infusions of vitamin C were increased to 100 grams per day, administered over five hours.

Within one week of starting the increased vitamin C infusions, the patient was walking around the halls of the hospital, looking like a new person. As the clinical rotation came to an end, the patient invited everyone connected with the vitamin C treatment to her room for a pizza party. The patient had her hair done and makeup on, something she had not done in the recent past. It was a wonderful pizza party, especially for a terminally ill cancer patient, once bedridden with intractable pain due to disseminated bone metastasis who, previously, was given a few weeks to live. After leaving the hospital, telephone calls were made to the physician to follow up on this patient. He said that she was discharged from the hospital one week after the vitamin C treatments were began. She continued to take high dose I.V. C treatments three times a week at home. Three months after she began the I.V. C treatments she was surviving with resolution of metastasis to the skull as shown on the bone scan.

This case illustrates problems encountered when dealing with health care workers who know little about complementary medicine. One example is the head nurse who thought that 30 grams of I.V. C "will kill you" and refused to administer it until proven otherwise. Yet the nurse probably had no hesitation in giving massive doses of intravenous morphine to the same patient. This case also illustrates that, occasionally, one encounters a physician who is willing to listen to his patient and try treatments not accepted by the conventional

medical community. In this instance, both the physician and the patient benefitted.

Case Update

As this article was in the process of being submitted for publication, additional information was learned about this patient. Upon discharge from the hospital, she returned home to find her husband dead, apparently of natural causes. During a three month time period, in addition to her husband, her brother and nephew also died. It was also learned that

while walking at a shopping mall, she apparently fell, breaking her hip. She was readmitted to the hospital where she died a short time later.

References

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