Healing Cancer the Proton Way

Have Cancer, Will Travel

Is There a Proton in Your Future?

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If old Professor Roentgen could do a "Rip Van Winkle" and find himself fully awake in the proton therapy center of Loma Linda University, in wonderment he might exclaim, "you mean that I started all this?" From his crackling cathode ray tubes with naked wires and invisible x-rays to the matched Ferris wheel-size gantries of this cancer busting center in just a century! Roentgen would find it mind boggling, and so does your HealthWise columnist.

No, it's not paradoxical that the same x-rays that can cause cancer can also cure it. Within five years of Roentgen's epic discovery, one of his technicians developed cancer of the fingers---cancer by X-ray. Later on it was learned that cancers bite the dust when treated scientifically with these penetrating rays, and then began the long trek toward cancer cures by Roentgen rays. Remember the "cobalt bomb?" Practically forgotten now, it represented a giant milestone toward the summit of cancer therapy---a long climb of Mt.Everest magnitude.

So, are we there yet? Is the summit in sight?

Not quite but we're getting close. Yes, we have the rays that search out malignant cells and expunge them. But something more is needed, and in a word, it's precision! Here's why: It's a matter of delivering energy, radiation energy, to malignant cells while sparing the good ones. X-ray have been doing that for most of the last century, again thanks to Roentgen. But x-rays have a bad attitude when it comes to discrimination. They destroy some good cells as they seek to zap the bad. O, they are good all right, but we have needed better.

Enter proton therapy. With the proton beam the skilled therapist can aim an exact amount of proton energy to a precise tumor deep within the human body. Ready, aim, fire and it's almost as decisive (and effective) as a snipers bullet. The difference? The proton beam kills cancer cells and spares the life of the patient. Viva la difference!

The Loma Linda University Medical Center located about halfway between sprawling Los Angeles and scintillating Palm-Springs, has for most of a decade been curing cancers of many varieties with its first of a kind in-hospital proton unit. Unit is hardly the word to convey its size (as large as a small hospital) and its complexity (like rotating gantries three stories tall) and its expense---more than $40 million. More than 6000 patients have been treated and the daily caseload is close to 100.

It's not for every case of cancer. Not yet anyway. Naturally, tumors that haven't yet spread their villainous tentacles to other organs, that have not metastasized, are most easily destroyed. Find the cancer while it is still near its site of origin and Loma Linda's skilled physicians have a sterling chance to dispose of it.
Is proton therapy for every cancer patient? No, for as in all human maladies, treatment of tumors must be individualized. But just the same, with protons we are reducing the menace of malignancies.

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