

### ANOMALOUS IMPROVEMENT

*In the winter 2000 issue, we printed a case report of an unusual clinical course of a brain tumor in a 3-month-old girl who had several operations and who also had ministrations from a Russian faith healer who was featured on a TV magazine show. We asked our readers to present a rational or more mundane and scientific explanation than intercession by a faith healer.*

*Dr Sandweiss's was the only entry in the race, and yet he found the one clue that led to the more prosaic reason: the fact that the tumor had shown signs of regression and necrosis before the faith healing began. Other reasons he presents are more speculative, may not be necessary, and may even weaken his case.*

*Cancer cells die and tumors necrose for a variety of reasons. So-called spontaneous remissions, better called "unexplained regressions," are examples of a natural, final common pathway in the natural history of some treated and untreated cancers.—Eds.*

I AM WRITING IN REGARD TO THE CASE REPORT IN THE *Scientific Review of Alternative Medicine* attributing an apparent cure of glioblastoma multiforme to psychic healing.<sup>1</sup> The medical history of this child is consistent with anomalous improvement. Anomalous improvement refers to the clinical course of treated or untreated disease that is significantly more favorable than historical patterns. Anomalous improvement of rapidly fatal malignant disease covers a spectrum of disease progression that includes: slowed progression, stability, regression with persistence, remission with recurrence, and remission with apparent cure. The patient under discussion falls into the last category.

Hirshberg et al. have described cases of "remarkable recovery" from malignant disease that coincided with serious infections and/or fever.<sup>2</sup> Coley noted that the administration of bacterial toxins had a favorable influence on the course of some patients with sarcoma.<sup>3</sup> It has been suggested that patients with lung cancer who develop an empyema after pneumonectomy have improved survival.<sup>4</sup> Perhaps certain infectious processes or high

fever might favorably influence tumor progression. Is the patient under discussion an example?

In October 1994 the patient "developed a severe illness of high fever and lethargy." Subsequently, in February 1995, the neurosurgeon expressed surprise that the tumor had not progressed more rapidly during the previous 4 or 5 months. Three months later "whitish-creamy material, containing many WBCs but no bacteria" was aspirated from the right frontal area. In June 1995 (1 month later) she was found to have "a fibrotic mass adherent to tumor" and "a thick fibrotic wall around the tumor islands." Was this intense inflammatory reaction in response to an infectious process or to the tumor itself? It certainly seems to have had a favorable influence in containing the tumor.

It is possible that psychosocial factors favorably influence progression of malignant disease. Hirshberg describes spontaneous cures of cancer that have been anecdotally associated with highly supportive caregivers, positive outlook, and the use of nonconventional methods such as meditation.<sup>2</sup> Studies have suggested that patients with breast cancer can experience a therapeutic benefit by manipulating the psychosocial environment.<sup>5</sup> Some authors propose that psychosocial factors associated with religiosity improve health outcomes.<sup>6</sup> Mechanisms have been postulated, but are unproven. Presumably, these effects are mediated by the autonomic, neuroendocrine, and/or immune systems. This patient's improvement actually seemed to begin several months prior to the encounter with the Russian "energy" healer. She continued to improve after these sessions began. Whether this improvement represents coincidence or a favorable therapeutic intervention is unknown. Certainly, one does not need to invoke paranormal forces or energies to explain a benefit.

What is clear is that anomalous cures of malignant disease, although rare, do occur.<sup>7</sup> The factors that produce these unusual cures, including that of the patient under discussion, are unknown. The phenomenon is worthy of further study.

#### REFERENCES

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## IN BRIEF

### *FTC Cracks Down on Marketers of Bogus Bioterrorism Defense Products*

The Federal Trade Commission in November warned Web site operators who suggest using such things as oregano oil or zinc mineral water to treat illnesses like anthrax that it is aware of no scientific proof for such claims and that the Web site operators must remove them from the Internet. After a coordinated Internet "surf" found sites touting products and therapies that claim to prevent, treat, or cure anthrax, smallpox, and other health hazards, the FTC sent about 40 e-mail warnings telling operators of these sites to pull the information immediately. The FTC staff will follow up by revisiting the targeted sites to determine whether the changes have been made. Operators who continue to make deceptive or misleading claims face possible prosecution for violating the Federal Trade Commission Act (FTC Act).

The warning campaign is based on information gathered via a coordinated Internet surf by the FTC with the help of the Food and Drug Administration (FDA), more than 30 state attorneys general, and the California Department of Health Services. The Internet search focused on products claiming to protect against, detect, prevent, or treat biological and chemical agents, including anthrax. More than 200 sites marketing bioterrorism-related products were uncovered, and additional sites are being evaluated for possible warning letters. Included in the review were such items as gas masks and protective suits; mail sterilizers; biohazard test kits; homeopathic remedies; and dietary supplements such as colloidal silver, zinc mineral water, thyme, and oregano oil as treatments for contamination by biological agents. Web sites may be subject to state or federal investigation or prosecution for making deceptive or misleading marketing claims that their products can protect against, detect, prevent, or treat biological or chemical contamination. "This marketing targets people worried about

the prospect of exposure to lethal biological or chemical weapons. The FTC is aware of no scientific basis for any of the self-treatment alternatives being marketed on the Internet," said Howard Beales, director of the FTC's Bureau of Consumer Protection. "Essentially, these operators need to shut down these areas of their sites or face prosecution. Our best advice for consumers: Consult your physician immediately if you believe you may have been exposed to anthrax or any other biological agents." Beales praised the coordinated effort by the various surf participants, noting that "this should help put an early end to misleading marketing attempts that prey on people's fears of anthrax, smallpox, or any other biological or chemical threats. Where necessary, we will pursue legal action vigorously or promptly."

John Taylor, the FDA's director of the Office of Enforcement, noted that the FDA has approved a limited number of products for the treatment of anthrax, including Ciprofloxacin (Cipro), doxycycline, and penicillin G procaine. "However," he added, "there are no products marketed as dietary supplements that have been proven safe or effective for the treatment or prevention of anthrax. Together with the FTC, we've found quite a number of disturbing sites. Companies marketing unapproved or otherwise misbranded products for anthrax or other diseases run a very high risk of FDA enforcement or regulatory action."

In addition, a broad coalition of trade associations representing the dietary supplement industry has indicated that there is no scientific basis for the promotion of dietary supplements for the treatment of anthrax.

Firms or individuals who violate the FTC Act could be subject to a federal district court injunction, enforceable through civil or criminal contempt proceedings; or an administrative cease and desist order, enforceable through civil penalties of up to \$11,000 per violation.