Spontaneous cancer remission rare, but worth study

In her 28-year career, Dr. Deborah Axelrod says she's had just one patient whose advanced breast cancer inexplicably vanished.

The patient, Ann Fonfa, endured multiple surgeries to remove cancerous tumors that kept growing back. All the while, Fonfa refused the recommended treatments of chemotherapy and radiation, instead experimenting with unproven alternative therapies, including changing her diet, taking herbs and reducing stress.

Seven years after her original diagnosis, Fonfa received good news: The cancer was undetectable. Fonfa, 66, has been cancer-free for the last 14 years.

In a few rare cases, people defy cancer without medical treatment or by using therapies that are considered inadequate, a phenomenon known as spontaneous remission. Scientists have been fascinated and baffled by these developments for as long as cancer has been recognized as a disease. Was it luck? Or did the patients do something special to harness the awesome power of the immune system?

Studying these exceptional people, however, is fraught with difficulty, controversy and the dangers of promoting bad science. The potential benefits of highlighting the unusual recoveries should be balanced against the risks, experts warn, including offering patients false hope, blaming those who succumb and encouraging alternative treatments in place of conventional methods that could prolong or save lives.

"We have all heard or seen a few cases like this," said Axelrod, of the Perlmutter Cancer Center at New York University Langone Medical Center. "I have also seen women die of neglected cancers, despite a fervent belief that they will be cured with a nontraditional treatment."

The public hunger for new ways to fight cancer — along with the enormous gap in scientific evidence — is reflected in the recent best-selling book "Radical Remission" by Kelly Turner, a psychotherapist and independent researcher who wrote about nine factors she believes could play a role in spontaneous regression.

The best way to win the war on cancer, according to Turner, is to talk to those who have already won. "It's only false hope if the stories are false," she said. "But these people truly had cancer. And they are well now."

Turner interviewed more than 200 people, including Fonfa, and analyzed more than 1,000 published cases. She found that those who heal from cancer without using conventional treatments — or after the treatments failed — had made significant lifestyle changes, such as radically altering the diet, using herbs and supplements, and embracing social support.

Medical experts say such observations aren't very meaningful given the lack of a comparison group.

"For every person we hear about who refuses cancer therapy and lives, there are additional people who refuse standard medical therapy and die," said Dr. Rebecca Johnson, a cancer specialist in the Seattle area who has also battled breast cancer. "There's no way to count the latter number. Without formal scientific studies, it's impossible to generate statistics on the efficacy of alternative treatments."

Turner stresses that she is not suggesting that patients abandon standard medical interventions. Instead, she hopes to encourage further study and share the stories of people diagnosed with advanced cancer who experienced unexpected recoveries.

It's impossible to know how often spontaneous remission occurs because physicians often don't document or publish the cases, the patient may simply stop showing up at the doctor's office, and most cancer patients in the past century have been conventionally treated in one way or another.

To date, the medical literature consists only of individual case studies and overviews. Some incidents, when more closely scrutinized, prove not to have been remissions at all.

Still, the phenomenon has been reported with virtually all kinds of cancer, more frequently in some types than others. Kidney, brain, uterine and skin cancer (melanoma) were the four most common types, according to a review of 176 published cases from 1900 to 1960 by University of Illinois College of Medicine surgeons Tilden Everson and Warren Cole. In cases of infant neuroblastoma, regression is so common that screening isn't recommended, according to the National Cancer Institute.

Everson and Cole didn't specify that the remission had to be permanent. They also excluded cases of lymphoma or leukemia because of the natural fluctuations in growth rates of these cancers.

In a follow-up study looking at incidence rates from 1900 to 1987, University of Calgary researchers found lymphoma and leukemia ranked among the most common remissions, along with melanoma and cancers of the brain and the retina. By contrast, the most common cancers overall were lung, colon and rectum and breast, according to the study.

"In prostate, colon and lung cancer, I have not seen a documented case of cancer spontaneously vanishing without treatment," said Larry Norton, deputy physician-in-chief for breast cancer programs at Memorial Sloan Kettering Cancer Center in New York City.

Cases of spontaneous regression have fueled speculation that cancer may be vulnerable to sudden surges of the immune system, which can occur with a high fever, bacterial infection, blood transfusion, or major surgery or antibiotic usage. The reaction may deprive the tumor of something it needs to survive — blood, lactic acid, thyroid hormones — and thus starve it until it collapses and dies.

In the late 1800s, New York surgeon William Coley noticed that contracting a post-surgical infection seemed to help some cancer patients. He began treating people with cancer by infecting them with certain kinds of bacteria, which came to be known as Coley toxins. Coley had some success, but researchers weren't able to replicate his work, and other forms of treatment overshadowed his ideas, according to the American Cancer Society.

Immune system theories are also weakened by the fact that thousands of cancer patients get fevers, antibiotics, blood transfusions and surgeries and only a few of them experience spontaneous regression.

Nonetheless, immunotherapy treatments for cancer remain an active research area, with new discoveries yielding cancer vaccines and drugs that have extended lives. The journal Science named cancer immunotherapy its 2013 Breakthrough of the Year in part for shifting the treatment paradigm to target the immune system rather than the tumor.

Turner and other researchers suspect some combination of psychological or spiritual factors could also be at play in cases of regression. Some research suggests that major mental or emotional changes can significantly affect the body's chemistry, especially the hormones released by the pituitary and pineal glands. That can lead to changes in the physiological system, including the immune system.

Dr. Lorenzo Cohen, a professor of general oncology and director of the Integrative Medicine Program at the University of Texas MD Anderson Cancer Center, has found that exceptional patients — those who had advanced, incurable cancer and who subsequently became disease-free or lived longer than expected — had adopted an attitude of "activism" that includes taking responsibility for their health and actively coping with their disease.

He cautions that patients can become "active" in their life and treatment and still not survive. But his team's findings suggest that "'activism' in its different forms might have a role in survival or more importantly for patient coping," according to the study, published in the journal Supportive Care in Cancer.

"We need to go back and examine archived tumors and blood samples of these exceptional patients," Cohen said. "Is there something unique about these tumors in terms of gene expression profiles that accounts for prolonged survival? It's all speculative, which is why getting tumor and blood samples from patients is equally as important as talking to them about how they are leading their lives."

Patients can benefit in general if they feel engaged in their health and well-being, Cohen said. The majority of cancers are caused by lifestyle factors such as smoking, being overweight, having an unhealthy diet and a lack of exercise, as well as sedentary behavior. So making healthier lifestyle choices — at any stage of the game — may shift cancer outcomes, Cohen said.

Fonfa, president and founder of the Annie Appleseed Project, a cancer patient advocacy group, was diagnosed with a slow-growing breast cancer in 1993. Though she underwent surgery, she

declined chemotherapy and radiation because she said her body overreacts to chemical exposures.

Instead, Fonfa adopted a vegan diet, exercised more and took enzymes. "I concentrated on the joy of life," said Fonfa, who lives in Delray Beach, Fla. "Serving in the advocacy world has been very valuable."

Surgery temporarily eliminated the tumors, but each time they grew back. In 1997, after three lumpectomies and a mastectomy, she was diagnosed with stage 4 cancer.

Finally, Fonfa tried Chinese herbs. After the first dose, she said, she broke out in hives. But within 10 months, the remaining tumors had vanished, something Fonfa attributes to a change in her immune system. "I have friends who have done everything mainstream and conventional, and they die. No one really knows the luck of the draw," she said.

Regression is rare in breast cancer, with just 32 reported cases, according to a 2008 study published in the Archives of Internal Medicine. However, the researchers noted that one factor behind the small numbers may be "the fact that these cancers are rarely allowed to follow their natural course."

Fonfa knows her cancer could return at any time but is confident she will survive that too.

Turner, who included Fonfa in her book, said it's irresponsible to disregard such stories, adding that studying anomalies has proved scientifically useful in the past. "When we ignore these cases, we lose the chance to learn something about the immune system," Turner said.

But any book that implies it's possible to triumph over cancer even when the situation looks hopeless needs important caveats, Cohen said.

"Even if you're leading a wholesome life with a healthy diet, regular exercise, connected to others, fostering love all around, eating organic, meditating every day and not having any negative interactions, you may still die of cancer," Cohen said, "because those are just some of the factors that contribute to the progression of disease or getting it in the first place."

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