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Chemotherapy Spreading Cancer

Analysis by Dr. Joseph Mercola | February 08, 2024

STORY AT-A-GLANCE

- Preoperative chemotherapy may increase the likelihood of metastasis in breast cancer cases by increasing what are known as “tumor microenvironments of metastasis”
- When mice with breast cancer were given preoperative chemotherapy, it altered the tumor microenvironment in ways that made them more conducive to cancer spread
- In mice, chemotherapy treatment doubled the number of cancer cells in the bloodstream and lungs compared to mice that did not receive the treatment
- In 20 human patients who received common chemotherapy drugs, the tumor microenvironments also became more favorable to cancer spread

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Dr. Lee Cowden says most people don't die from cancer; they die from the side effects of treatment. While the "war against cancer" is moving toward more personalized and so-called "precision medicine" treatments, the old standby model of "cut, poison and burn," via surgery, chemotherapy and radiation, is still widely used and regarded as the standard of care for many cancer cases.

One of the major problems with chemotherapy is its indiscriminate toxicity, which poisons your body systemically in an attempt to knock out cancer cells. There have long been signs that this model has fatal flaws and may cause more harm than good. In the case of the breast cancer chemotherapy drug Tamoxifen, for instance, patients must

trade one risk for another, as while it may reduce breast cancer, it more than doubles women's risk of uterine cancer.[1]

Serious, sometimes-fatal side effects (or more aptly, simply effects) of chemotherapy are common, as are serious unforeseen effects that may make your cancer prognosis worse instead of better.

Writing in the journal Science Translational Medicine, researchers from the Albert Einstein College of Medicine revealed that giving chemotherapy prior to surgery for breast cancer may promote disease metastasis, or the growth and spread of cancer to other areas of the body.[2] This, in turn, greatly increases a woman's risk of dying from the disease.

Chemotherapy May Make Breast Cancer More Aggressive and Likely to Spread

Preoperative chemotherapy, known as neoadjuvant chemotherapy, is often offered to women because it may help shrink tumors, which increases the likelihood that women will receive lumpectomy surgery instead of a full mastectomy. After performing tests on mice and human tissue, however, the researchers found that doing so may increase the likelihood of metastasis by increasing what are known as "tumor microenvironments of metastasis." As Stat News explained:[3]

> *"Called 'tumor microenvironments of metastasis,' these on-ramps are sites on blood vessels that special immune cells flock to. If the immune cells hook up with a tumor cell, they usher it into a blood vessel like a Lyft picking up a passenger. Since blood vessels are the highways to distant organs, the result is metastasis, or the spread of cancer to far-flung sites."*

When mice with breast cancer or given human breast tumors were given the chemotherapy, it altered the tumor microenvironment in ways that made them more conducive to cancer spread, including, Stat reported:[4]

- Increasing the number of immune cells that transport cancer cells into blood vessels
- Making blood vessels more permeable to cancer cells
- Making tumor cells more mobile

In mice, chemotherapy treatment doubled the number of cancer cells in the bloodstream and lungs compared to mice that did not receive the treatment. Further, in 20 human patients who received common chemotherapy drugs, the tumor microenvironments also became more favorable to cancer spread. As The Telegraph noted:

> *"It is thought the toxic medication switches on a repair mechanism in the body which ultimately allows tumors to grow back stronger. It also increases the number of 'doorways' on blood vessels which allow cancer to spread throughout the body."*[5]

Further, researchers wrote in a 2012 Journal of Clinical Oncology editorial, "Unfortunately, neoadjuvant chemotherapy does not seem to improve overall survival, as demonstrated in the National Surgical Adjuvant Breast and Bowel Project (NSABP) B18 trial, among others."[6] This means women may be trading a potential increased risk of cancer metastasis for a treatment that doesn't even improve their chances of survival.

It's Been Known for Years That Chemotherapy Can Trigger Tumor Growth

While the news that chemotherapy may encourage cancer spread may sound surprising, it's not a new discovery. In 2012, researchers found chemotherapy for prostate cancer caused DNA damage in healthy cells and caused them to secrete more of a protein called WNT16B, which boosts tumor growth and may encourage cancer cells to develop resistance to treatment.

"WNT16B, when secreted, would interact with nearby tumor cells and cause them to grow, invade and, importantly, resist subsequent therapy," study co-author Dr. Peter

Nelson, of the Fred Hutchinson Cancer Research Center, told AFP News.[7]

In the journal Nature Medicine, the researchers further noted, "The expression of WNT16B in the prostate tumor microenvironment attenuated the effects of cytotoxic chemotherapy in vivo, promoting tumor cell survival and disease progression"[8] and "… [D]amage responses in benign cells … may directly contribute to enhanced tumor growth kinetics."[9]

While research continues to reveal that chemotherapy's effects are wide-reaching and devastating to healthy cells, it's also been shown — at least as far back as 2004 — that "chemotherapy only makes a minor contribution to cancer survival."[10] A Clinical Oncology study found that in terms of five-year survival rates in adult cancer cases, chemotherapy has an average five-year survival success rate of just 2.3% in Australia and 2.1% in the U.S.[11]

Separate research revealed that out of nearly 2,000 patients receiving chemotherapy, 161 deaths occurred within 30 days of the treatment. Nearly 8% of them were classified as related to the chemotherapy (and another nearly 16% were unclassified due to insufficient information).[12]

Further, as mentioned, chemotherapy can increase the risk of subsequent cancer, such as therapy-related acute myeloid leukemia (tAML), "a rare but highly fatal complication of cytotoxic chemotherapy." Researchers noted that tAML cases occur nearly five times more often in adults treated with chemotherapy than they do in the general population.[13]

Conventional Oncologists Aren't Likely to Explain the Many Options for Treatment

Upon receiving a cancer diagnosis, many people assume their only options for treatment are chemotherapy, surgery or radiation. Only you and your health care team can make the decision on how to best pursue treatment, but you should know that conventional providers are unlikely to think outside the box.

Oncology is the only specialty in medicine that is allowed and even encouraged to sell drugs at massive profits — typically in excess of 50% — and cancer drugs are, as a general category, the most expensive medications in all of medicine to begin with. Oncologists actually get a commission for the chemotherapy drugs they sell, and with that type of incentive, it's nearly impossible to imagine them actively seeking other alternatives.

Oncologists are further constrained by the "standard of care" prescribed by oncology medical boards and the drug industry. If they go against the established standard of care, they're susceptible to having their license reprimanded or even taken away. As a result, patients are typically forced to go it alone if they don't want to go the conventional route, which is unfortunate because there are many promising alternative treatments.

Understanding Your Options for Cancer Treatment

A comprehensive natural cancer-fighting approach would be to make your body as healthy as possible, using detoxification, strategies to boost your immune function, dietary changes and other targeted therapies depending on your needs. For instance, Annie Brandt — a 16-year cancer survivor and author of "The Healing Platform: Build Your Own Cure!" — states products that are helpful against metastatic cancer cells include:

Berberine / metformin	Intravenous vitamin C	Sulforaphane (cruciferous vegetables)
Curcumin (turmeric)	Broccoli sprouts	Glucoraphanin
Myrosinase	Essiac tea	Burdock root
Slippery elm	Rhubarb	Sheep sorrel
Fermented soy	Fish oil	Modified citrus pectin (PectaSol-C)

Heparin

The point is that there are many anticancer strategies overlooked by conventional medicine. Many of them even work in addition to conventional treatment. For instance, vitamin C in combination with nutritional ketosis and fasting prior to administering chemotherapy radically improve the effectiveness of chemotherapy.

Oncologists in Turkey, who aren't under the same U.S. restrictions, are also using a stacked ketogenic treatment protocol that is showing shocking remissions in many stage 4 cancer patients. The treatment protocol at ChemoThermia Oncology Center in Turkey includes:

- Metabolically supported chemotherapy (applying chemotherapy with a variety of interventions to support its effectiveness)
- Hyperthermia
- Hyperbaric oxygen therapy
- Glycolysis inhibitors, especially 2-deoxyglucose (2-DG) and dichloroacetate (DCA)
- Ketogenic diet with phytopharmaceutical supplements

At the center, all oncology patients are put on a ketogenic diet, which creates metabolic stress on the cancer cells. Then, prior to administering the chemo, the patient will do a 14-hour fast, which further increases the metabolic stress on the cancer cells.

The patients will typically have a blood glucose level around 80 milligrams per deciliter (mg/dL) at this point. They then apply glycolysis inhibitors to inhibit the glycolysis pathway in the cancer cells, which creates a terrific amount of metabolic stress, as the cancer cells are already starved of glucose.

Insulin is then applied to lower the blood glucose levels to around 50 or 60 mg/dL, to cause mild hypoglycemia. At that point, chemotherapy is applied, often at a far lower dose than would otherwise be used, thereby lowering the risk of side effects.

In the days following chemotherapy, hyperthermia and hyperbaric oxygen therapy are applied, plus a daily infusion of glycolysis inhibitor therapies with high-dose vitamin C (50 grams) and dimethyl sulfoxide (DMSO). A sampling of other targeted therapies covered in Brandt's book are below.

Poly-MVA, a colloidal mineral complex that crosses the blood-brain barrier and helps renourish your body and brain at the cellular level. It also helps replace nutrients lost during chemotherapeutic and radiological treatments.

AvéULTRA (Metatrol), a fermented wheat germ product.

Selenium, vitamin D and iodine, as most cancer patients are low in these three nutrients. Since I do regular sauna therapy, I take 200 micrograms of SelenoExcell each day. (You tend to excrete selenium when sweating.) Selenium increases glutathione, an important metabolic antioxidant necessary for detoxification. It also catalyzes the conversion of thyroid hormone T4 to T3, so it can be beneficial if you have thyroid problems.

Modified citrus pectin (MCP) has been shown to reverse cancer and stop metastatic cancer. Brandt recommends the brand ecoNugenics, as this is the one that has been scientifically studied and verified to work.

Colloidal silver is a nontoxic, broad-spectrum antimicrobial therapy with no known toxicity and no known mechanism for acquired resistance.

Salicinium, a plant-based extract that inhibits production of nagalase — an enzyme produced by cancer cells — while simultaneously stimulating innate immune cells.

So as mentioned, there are many promising avenues to target cancer. Even if you're working with a conventional oncologist, the ChemoThermia Oncology Center has published protocols your oncologist could make use of, regardless of where you live. If your oncologist isn't willing to integrate these alternative strategies into your care regimen, you may want to consider finding a new doctor.

Sources and References

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