



Treatment of Chemotherapy and its Side Effects

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DESCRIPTION

Cancer treatment has improved for decades. In addition to developing more effective treatments, researchers are also focused on reducing their side effects. This is important because there are about 16 million people in the United States with a history of cancer. This number is set to increase to over 20 million by 2026.

Problems that affect healthy tissues and organs and occur as a result of cancer treatment are called side effects of cancer treatment. Side effects can vary from person to person and from treatment to treatment, so two people receiving the same treatment can experience very different side effects. Some people experience side effects that occur during treatment and improve over time. This is the most common scenario [1].

However, some people experience serious side effects, that last months or even years after they stop treatment. It is important to consult your doctor if any side effects of cancer treatment occur. Managing side effects is an important part of cancer treatment and is about improving quality of life.

Chemotherapy (often abbreviated as chemotherapy, sometimes abbreviated as CTX or CTx) is a cancer that uses one or more anticancer agents (chemotherapeutic agents) as part of a standardized chemotherapy regimen. Chemotherapy can be curative most often with drug combinations, or life-prolonging or symptomatic relief like palliative chemotherapy. Chemotherapy is one of the major categories of medicine specializing in drug therapy for cancer, known as oncology [2-5].

The term chemotherapy has come to refer to the non-specific use of endotoxins to inhibit mitosis (cell division) or induce DNA damage. Therefore, inhibiting DNA repair can complement chemotherapy. The meaning of the word chemotherapy excludes more selective drugs that block extracellular signals (signal transduction). The development of treatments with specific molecular or genetic targets that block growth-promoting signals from classical endocrine hormones (mainly breast cancer oestrogens and prostate cancer androgens) is now called hormone therapy. In contrast, other inhibitions of growth

signals associated with receptor tyrosine kinases are called targeted therapies.

Importantly, drug use of chemotherapy, hormone therapy, or targeted therapy is introduced into the bloodstream and, therefore, can attack cancer at any anatomical site in the body in principle consist of systemic cancer therapy. Systemic therapy should be used in combination with other modalities that provide topical therapies ie, treatments that are limited to the anatomical area to which efficacy applies, such as radiation therapy, surgery, and hyperthermia.

Cancer cells tend to grow rapidly, and chemotherapeutic drugs kill the cells that grow rapidly. However, because these drugs move through the body, they can also affect normal, healthy, fast-growing cells. Damage to healthy cells causes side effects. Side effects aren't always as bad as you might expect, but it's normal to worry about this part of cancer treatment.

The normal cells most likely to be damaged by chemo are:

- Blood-forming cells in the bone marrow
- Hair follicles
- Cells in the mouth, digestive tract, and reproductive system

Some chemotherapeutic drugs can damage cells in the heart, kidneys, bladder, lungs, and nervous system. We may be able to take medicine during chemotherapy to protect the body's normal cells. There are also treatments that relieve side effects.

Doctors try to give enough chemotherapy to treat the cancer while minimizing side effects. They also try to avoid the use of multiple medications with similar side effects [6,7].

The side effects we experience during chemotherapy depend on the medication or combination of medications prescribed. Different drugs have different side effects. And each person's experience is different. We cannot experience the same side effects by taking the same medicine. Also, taking the same medicine again may cause side effects that are different from the past [8].

Common side effects of chemotherapy include:

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Fatigue - Even if we get enough sleep, we will feel tired and tired. This is the most common side effect of chemotherapy.

Hair loss - Some, but not all, types of chemotherapy cause hair loss. The hair on our body may come out gradually or in large chunks. Hair loss usually begins after the first few weeks of chemotherapy. It tends to increase 1-2 months after the start of chemotherapy. The doctor can predict our risk of hair loss based on the medications and doses you receive.

Pain - Chemotherapy sometimes causes pain. This can include:

- Headaches
- Muscle pain
- Stomach pain
- Pain from nerve damage, such as burning, numbness, or shooting pains, usually in the fingers and toes

CONCLUSION

Most types of chemotherapy-related pain improve or disappear between treatments. However, nerve damage often worsens with each dose. We may need to stop the medication that is causing the nerve damage. It can take months or years for chemotherapy-induced nerve damage to improve or disappear. For some people, it can cause permanent damage.

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