



JUPITER IMAGES

According to the American Cancer Society, more than half of all cancer patients undergo chemotherapy, which can destroy cancer cells throughout the body no matter where they may have spread.

CANCER

Chemotherapy still effective

Improved support care can minimize, prevent side effects

By EDMUND MEINHARDT
VIEW ON HEALTH

Many patients fear chemotherapy.

Who hasn't heard about side effects such as nausea, vomiting and hair loss? Who wouldn't find them alarming? A cancer diagnosis can be upsetting enough without the prospect of debilitating drug side effects.

There have been great advancements in cancer chemotherapy in the past two decades, but side effects are still common. The good news is that these side effects can be minimized and sometimes even prevented with recently developed drugs. A chemotherapy regimen now typically consists of a scheduled doses of one or more chemotherapy drugs along with support care, or drugs prescribed to help control side effects.

Anu Thummala, M.D., a hematologist-oncologist at Comprehensive Cancer Centers of Nevada who also practices at Mountain View Hospital, said many important advances in supportive care

have been made in the past 20 years. These advances are helping more patients stay on their scheduled chemotherapy regimens, which is critical to defeating cancer.

"There are tons of new drugs in the pipeline," Thummala said.

Cancer chemotherapy had its origins in the 1940s, according to the American Cancer Society. Examinations of people accidentally exposed to mustard gas, a deadly poison used during World War I, revealed extremely low white blood cell counts. Scientists theorized that agents in the mustard gas had destroyed the rapidly multiplying cells and might have a similar effect on cancer cells.

Today, there are about 100 drugs used for cancer chemotherapy. The concept remains essentially the same: use drugs to destroy the rapidly growing cancer cells.

SIDE EFFECTS

Chemotherapy is a particularly useful tool in fighting cancer because it can destroy cancer cells

throughout the body wherever they may have spread, as opposed to radiation treatment, which is intended to destroy cancer cells in a specific location. This means that chemotherapy agents can also destroy normal and healthy cells that multiply rapidly, such as hair and cells along the lining of the digestive tract. This can result in two of the more common side effects, nausea and hair loss. Chemotherapy can also interfere with the manufacture of blood cells and platelets in the bone marrow, which can leave patients susceptible to infection.

Hair loss is a common and predictable side effect of chemotherapy.

"Women fear hair loss," said Thummala, who treats many breast cancer patients. "It's a big thing for them. But it's temporary. It will grow back."

Thummala, said her patients take a chemotherapy education class. They watch a video and spend an hour with a nurse learning how chemotherapy works and

what side effects to expect.

Ron Kline, M.D., a pediatric oncologist with Sunrise Children's Hospital, said nausea symptoms can be controlled very well with serotonin antagonists such as Zofran.

"It's miraculous," Kline said.

Kline and Thummala both emphasized the importance of controlling nausea symptoms, because nausea can cause a patient to delay or miss doses, which can diminish the effectiveness of the treatment.

Kline said chemotherapy drugs are often prescribed in combinations, depending on the type and stage of cancer being treated. Two or more agents can be taken at full dose at the same time because they don't cause stress or toxicity to the same organ system, a concept called "non-overlapping toxicity." It allows physicians to aggressively target cancer cells without increasing the risk to the patient.

Olya Banchik, D.D.S., who practices general dentistry, recommends every cancer

patient see a dentist for an oral exam before undergoing chemotherapy.

"It's important to check for and treat any oral infections before starting chemotherapy," Banchik said. "You don't want the body distracted by an infection."

Chemotherapy patients are extremely susceptible to tooth decay, Banchik said, so it's important to continue to see an oral health professional while in treatment.

Dry mouth, sometimes called xerostomia, is another common side effect of chemotherapy treatment. "It can make oral infection more likely," Banchik said. If necessary, prescription and over-the-counter drugs to stimulate salivary flow are available.

Sometimes chemotherapy can cause sores in the mouth. If these become severe enough, Banchik said, it can interfere with getting proper nutrition and hydration. Laser treatments are available to cauterize these sores. "It can help them heal faster and make it tolerable for the patient to eat," Banchik said.

NEW FORMS OF TREATMENT

Cancer treatment is

a rapidly evolving area of medicine, and new chemotherapy drugs are always emerging. The aim is the same — to kill cancer cells throughout the body — but new methods of accomplishing that aim are in development.

Kline said there is a new class of compounds known as anti-angiogenesis compounds. "Angiogenesis" refers to the growth of new blood vessels. "Anti-angiogenesis" compounds work by inhibiting blood vessel growth, depriving the cancer cells of new blood vessels.

"This cuts the cells' supply lines," Kline said. Thus deprived of blood flow, the cancer cells essentially starve to death.

Advances in supportive care drugs, such as serotonin antagonists to help with nausea, have sharply reduced the number of chemotherapy patients admitted to hospitals for dehydration, Thummala said.

Kline agreed that chemotherapy has become much more effective and is much more easily tolerated by cancer patients these days.

"It's not your father's chemotherapy any more," Kline said.

KIDS & TEENS

SURVEY: FEW PHYSICIANS SUPPORT PRIVATE BANKING OF UMBILICAL CORD BLOOD

The results of the survey are reported by researchers at Dana-Farber Cancer Institute and their colleagues in the March issue of the journal Pediatrics. For the current study, surveys were sent to 152 pediatric hematopoietic cell transplant physicians in the United States and Canada, 93 of whom responded. The respondents reported that of the thousands of stem

cell transplants they had performed, only 50 involved privately banked cord blood. Forty-one of those cases were "allogeneic" transplants, in which blood from one individual was used to treat another member of the family. And in 36 of those cases, families already knew of a member who was a candidate for a transplant prior to banking the cord blood. The researchers identified only four or five cases in which cord blood that had been privately banked "just in

case" it would someday be needed was actually used to treat a sibling of the donor.

OBSESSIVE SYMPTOMS IN CHILDHOOD CAN MULTIPLY PROBABILITY OF OBSESSIVE-COMPULSIVE DISORDER IN ADULTHOOD

According to researchers, there is a connection between the symptoms of obsessive-compulsive rituals in childhood with the risk of developing an obsessive-compulsive disorder as adults. One of the main conclusions

of the study is that children who repeatedly manifest having obsessions and compulsions notably increase their risk of suffering from a disorder later in life. Based on the analysis of these data performed, researchers for the first time have obtained objective proof that there is a correlation between obsessions and compulsions in childhood and the probability of suffering from an obsessive-compulsive disorder as an adult. More specifically, the girls and

boys in the study who showed symptoms of obsessive or compulsive behavior at 11 were six times as likely than others to suffer from an obsessive-compulsive disorder in adulthood. The study was published in the American Journal of Psychiatry.

FEWER YOUNG CHILDREN HAVE ELEVATED LEAD LEVELS, STUDY FINDS

The number of young U.S. children who had elevated levels of lead in their blood

decreased by 84 percent between 1988 and 2004, according to a study published in the journal Pediatrics, the AP/Philadelphia Inquirer reports. For the study, researchers at the Centers for Disease Control and Prevention examined data on almost 5,000 children ages 1 to 5 who participated in a periodic government health survey. Researchers considered children who had

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Fewer kids with lead poisoning