Tumor Cryoablation Can Help Reduce Cancer Pain

Cancer tumors in bone or soft tissue areas can be painful and difficult to treat. However, new research has found that freezing tumors in these cases can help to reduce patients’ pain and need for narcotics.

Patients with severe tumor pain usually are prescribed high levels of narcotics, which reduce the pain but interfere with daily activities such as driving and reading. Doctors using tumor cryoablation, however, say that the treatment has reduced their patients’ need for narcotics.

Cryoablation is performed by inserting a probe with as many as eight ultracold applicators that freeze the tumor. It can be done under general anesthesia or conscious sedation. The procedure is relatively pain free because the freezing numbs the surrounding tissue.

The physicians used cryoablation in four patients with tumor masses in bone or soft tissues. The first patient had improvements in pain immediately and continued to be pain free for 12 months. The second patient also reported less pain, but she died a month later. The third patient remained pain free 13 months after her treatment, but the procedure caused a loss of sensation and movement in her left arm; she had been warned of this risk and said that she was satisfied with the results. The fourth patient also reported experiencing less pain.

The researchers said that the treatment could have been more effective if patients had received it earlier, but they had to exhaust all drug therapies before trying the new procedure. They also said that they believe that tumor cryoablation could be used as a curative treatment in the future.

The study was reported in the March issue of the American Journal of Roentgenology (Vol. 184, pp. 926–930).

Birth Weight May Predict Cancer Risk

According to a British study, birth weight may have an impact on a person’s risk for certain cancers as an adult.

The study assessed 11,166 babies born from 1915–1929 in Sweden; it looked at a number of birth factors, including birth weight compared to gestational age. A total of 2,685 people (24%) in the group were diagnosed with cancer from 1960–2001.

Those with higher than average birth weights for their gestational age had a 13% increase in digestive cancers and 17% increase in lymphatic or hematopoietic cancers. Higher weight also caused an increase in nonreproductive cancers.

The researchers did not find an association between birth weight and increased risk of reproductive cancers in men. In women, though, higher birth weight raised the rate of breast cancer in those younger than 50. However, when birth weight was compared to endometrial cancer rates, lower birth weight was associated with a higher rate of disease.

Men’s rate of cancer increased by 8% at all ages with each standard deviation increase in birth weight. Such increases in women caused a 24% increase in cancer rate, but only in women younger than 50.

The authors also noted that previous studies have found that other health factors are associated with low birth weight, such as diabetes and heart disease.

The study will be published in the July 1 issue of the International Journal of Cancer (Vol. 115, pp. 611–617).

Lenalidomide May Be Effective in Patients Who Do Not Respond to Erythropoietin

Lenalidomide may help patients with anemia from low-risk myelodysplastic syndromes who have had no response to erythropoietin. The drug, an analog of thalidomide, has received fast-track status from the U.S. Food and Drug Administration and could be available as soon as later this year.

A study looked at 43 patients with transfusion-dependent or symptomatic anemia who did not respond to erythropoietin. The patients were given 25 or 10 mg of lenalidomide per day for 28 days or 10 mg for 21 days of every 28-day cycle.

Twenty-five patients developed neutropenia or thrombocytopenia and had to interrupt treatment or reduce doses. These were the most common adverse effects with frequencies of 65% and 74%, respectively. Twenty-four patients (56%) responded to the lenalidomide treatment; 20 did not need transfusions, 1 had an increase of more than 2 g/dl in hemoglobin, and 3 reduced their need for transfusions by more than 50%.

Patients with lower prognostic risk or a clonal interstitial deletion involving chromosome 5q31.1 responded the most to treatment. Twenty patients had karyotypic abnormalities; of these, 11 reduced abnormal cells by 50% or more in metaphase and 10 achieved complete cytogenetic remission.

The study followed patients for a median of 81 weeks; by that time, the duration of transfusion independence had not been reached and the median hemoglobin level was 13.2 g/dl (range = 11.5–15.8 g/dl).

The study was reported in the February 10 issue of the New England Journal of Medicine (Vol. 352, pp. 549–557).
Sunlight May Cause Less Aggressive Tumors

New research is helping to explain why exposure to sunlight increases survival from melanoma. Researchers from the University of New Mexico in Albuquerque found that melanoma tumors caused by sunlight are less aggressive than those not associated with the sun. The study followed 528 patients with melanoma who were entered in the Connecticut Tumor Registry. The researchers found that increased survival from melanoma was associated with sunburn, high intermittent sun exposure, self-reported skin awareness, and solar elastosis. Multivariate analysis revealed that skin awareness was a strong, independent predictor of survival, which confirmed earlier beliefs; however, solar elastosis was found to be an even stronger predictor.

The researchers stressed that these findings should not influence current recommendations that avoiding sunlight reduces the risk of melanoma. They also said that exposing melanomas to sunlight after they have developed is not recommended for improving survival.

The study was reported in the Journal of the National Cancer Institute (Vol. 97, pp. 195–209).

Colorectal Cancer News

Calcium Found to Have an Effect on Colorectal Cancer

A 8.5-year study of more than 45,000 women in the United States demonstrated that dietary calcium and calcium supplements can reduce a woman’s risk of colorectal cancer. The women had a mean age of 62 years. They completed a survey that assessed their diets for the previous year, and they reported the amount of calcium they took from supplements and multivitamins. During the study, 482 women developed colon or rectal cancer.

The women were grouped according to their sources of calcium: food and supplements. Overall, women who obtained calcium from food reduced their risk of colorectal cancer by 26%. The best results were seen in women who ate calcium-rich foods and took the highest amount of calcium supplements; their risk of colorectal cancer was reduced by 46%. Women who ate foods containing calcium but did not get much calcium from supplements saw only an 18% reduction in colorectal cancer risk.

The researchers were not sure how calcium lowered colorectal cancer risk, but they ruled out other vitamins in dairy products, an excellent source of dietary calcium, also contain fats that may increase prostate cancer risk.

The study was reported in the January issue of Cancer Epidemiology, Biomarkers and Prevention (Vol. 14, pp. 126–132).

Clinical Trial Will Test Computed Tomographic Colonography

A new clinical trial from the American College of Radiology Imaging Network, funded by the National Cancer Institute, will test the efficacy of computed tomographic colonography (CTC) as a screening tool for colorectal cancer. CTC will be used in 15 centers across the United States.

Current colorectal screening tools are limited by poor sensitivity and specificity performance, patient risk, and compliance barriers. Researchers hope that CTC will help to eliminate these limitations.

Researchers are performing the trial to test whether CTC is as effective as colonoscopy, which is the current gold standard test for colorectal cancer. The trial is expected to provide data that can be used to weigh CTC’s value and practicality.

For more information about the CTC trial or to obtain a list of participating centers, visit www.acrin.org/6664_protocol.html.

Clinical Trial Participants Want to Know Study Results

According to a pilot study, participants in clinical trials want to know the results of the studies, even if the results are negative.

In the past, many researchers have believed that sharing results with participants is difficult because they could have a negative emotional effect on patients, patients may not understand the results, and sharing the results takes money and clinicians’ time. Therefore, results usually are not shared unless they would affect participants’ future care.

Researchers from the pilot study approached patients who had participated in a study of surgery for early breast cancer and asked them if they would like to be told the results. Of 135 participants, 117 wanted to learn the results. After sharing the results with those patients, the researchers surveyed 94 of them.

Ninety patients said that they were glad to know the results, 81 said that they did not regret their decision to be told the results, and 66 would recommend participation in a study to others. Seven women were “much more concerned” about the possibility that they would develop breast cancer in the future, and 10 said that they were “somewhat more concerned.”

Better-educated women were more likely to want to know the results. Seventy-one participants said that the lay summary of the results was easy to understand.

Researchers believed that sharing results with participants is an effect on colorectal cancer.

The researchers said that although some patients did have increased anxiety after learning the results, most patients were glad that the researchers offered to share the results. They suggested that some results could be shared through the mail, but in certain situations, researchers may need to reveal the information in person.

The study was reported in the March 10 issue of the Lancet (Vol. 365, pp. 963–964).
Gene Mutations Now Associated With Less Invasive Breast Cancer

*BRCA1* and *BRCA2* gene mutations have a known association with invasive breast cancer, but new research also links them with ductal carcinoma in situ (DCIS), a less invasive form of breast cancer.

Researchers conducted telephone interviews with and looked at *BRCA* mutation tests in 369 women who were diagnosed with DCIS from 1994–1998. The patients had a rate of 0.8% and 2.4% of *BRCA1* and *BRCA2* mutations, respectively. One patient had both mutations. Women with invasive breast cancer have rates ranging from 0.4%–2.6% for *BRCA1* mutations and 1.5% for *BRCA2* mutations.

Women with a *BRCA* mutation were more likely to have a family history of breast cancer and a personal history of ovarian cancer. Woman with a mutation also were more likely to be diagnosed with breast cancer at an earlier age. Researchers said that their findings suggest that women with a personal or family history of these cancers should be screened and followed as high-risk patients.

The study was reported in the February 23 issue of *JAMA* (Vol. 293, pp. 964–969).

Coordinated Effort Will Help Find New Drugs for Childhood Cancer

A panel of experts recommended that the National Cancer Institute work with drug companies to help them develop new drugs to treat childhood cancers.

Because cancer in children is so rare, drug companies need incentives to develop treatments geared toward children rather than adults.

So far, treatments for childhood cancers have helped to increase the five-year survival rate of children with cancer younger than 15 from 56% in the mid-1970s to 79% today.

Some drugs formulated for adults also work in children. However, if a child-specific drug is needed, some companies are reluctant to spend the money to develop the treatment for the small cancer population of children.

The panel of experts suggested that the National Cancer Institute work with the companies to help them test the child-specific drugs and that the U.S. Food and Drug Administration help speed the process of testing the drugs in children.

Eczema Creams Could Cause Cancer

The U.S. Food and Drug Administration (FDA) is requiring two eczema creams—Protopic® (Astellas Pharma US, Inc., Deerfield, IL) and Elidel® (Novartis Pharmaceuticals, East Hanover, NJ)—to carry a black box warning that the creams are absorbed into the body and could cause cancer. The FDA also said that babies should not be treated at all with either cream and that the drugs should be used only as directed and only after other treatments have failed.

Since the drugs were approved in 2000 and 2001, respectively, seven cases of lymphoma and six cases of skin cancer have been reported in patients using the creams. Animal tests of the treatments also have suggested that they cause cancer.

If the creams are necessary, doctors prescribing them should indicate that they are to be used for the shortest time possible. The FDA also reminded that the creams are not approved for children younger than 2 years because clinical trials reported that use in very young children resulted in higher rates of respiratory infection. Researchers believe that because the creams work by suppressing the immune system, they could have a negative effect on the development of immune systems in very young children.

New Test May Be an Easy, Inexpensive Way to Screen for Testicular Cancer

Researchers in Denmark have found a new way to detect very early signs of testicular cancer after diagnosing the disease in a 23-year-old man. The man had fertility problems but no signs of testicular cancer, so physicians looked for a protein called AP-2gamma in his semen. AP-2gamma has been found in testicular carcinoma in situ (CIS) before the cancer has spread.

The man was having a routine semen analysis because he and his partner had been trying to conceive for 18 months. Additional tests confirmed that he had CIS.

The researchers were conducting a study comparing levels of AP-2gamma in men with testicular cancer and healthy controls. Their findings may lead to an inexpensive, noninvasive method for diagnosing and possibly even screening for testicular cancer.

Guidelines on Reporting Infections in Hospitals Have Been Released

The Centers for Disease Control and Prevention (CDC) have issued national guidelines for hospitals and clinics on reporting, tracking, and alerting the public to serious infections.

Illinois, Pennsylvania, Missouri, and Florida already have state laws requiring that hospitals publicly report infections related to health care. Thirty additional states are considering such laws. The CDC’s guidelines will help these states set up their mandatory reporting systems. The guidelines advise that states consult with disease experts, adhere to established infection-surveillance methods, and provide regular feedback to healthcare providers.

Although the CDC said that it is unsure whether these reports will lower the numbers of infections, it does believe that the information could lead to improved public safety.

Current healthcare infection rates are estimated at two million infections annually, with approximately 90,000 deaths from infections each year, for a total of $4.5 billion in excess healthcare costs per year.