Liver Cancer Incidence Is Growing Faster Than Incidence of Other Cancers

According to the Liver Cancer Network, the incidence of liver cancer in the United States is increasing faster than any other cancer. The network’s study of 250 patients also found that more than 52% of patients with liver cancer had hepatitis C and 87% had underlying liver disease. Twenty percent of patients had a history of alcohol abuse.

Liver cancer frequently is associated with chronic liver disease, so chemotherapy is ineffective because of poor drug metabolism. Liver transplant is usually the best treatment option for patients with liver cancer.

The study was presented at the annual meeting of the American Association for the Study of Liver Diseases.

Dogs May Be Trained to Identify Bladder Cancer Markers

British researchers have found that dogs, with proper training, might be able to identify, by scent, chemicals emitted from cancerous cells in the urine of individuals with bladder cancer. Researchers trained six dogs of various breeds and ages to identify urine that contained cancer compounds by lying down next to the sample. The dogs then were tested with urine samples from 36 patients with bladder cancer and 108 healthy individuals. Each dog sniffed six healthy samples and one sample from a patient with cancer; the dogs detected the cancer samples an average of 41% of the time. The dogs had a 14% chance of selecting the correct samples accidentally.

The researchers believe that dogs could be trained to help them identify markers for other types of cancer, as well. For example, all of the dogs indicated the presence of cancer compounds in the urine of an individual from the control group who had been tested for and deemed free of bladder cancer. After further testing because of the dogs’ response, the individual was found to have kidney cancer.

This study was reported in the September 25, 2004, issue of BMJ (Vol. 329, p. 712).

Skin Rash May Predict Cetuximab Efficacy

Researchers at the European Organization for the Research and Treatment of Cancer–National Cancer Institute–American Association for Cancer Research Symposium on Molecular Targets and Cancer Therapeutics in Geneva, Switzerland, reported that they found a strong correlation between the degree of skin toxicity in patients receiving cetuximab for metastatic colorectal cancer and the efficacy of the drug. Patients with more severe rash and larger areas of rash showed a higher response to treatment and longer survival.

The study followed 346 patients with advanced colorectal cancer that expressed epidermal growth factor receptor. The patients had failed at least two prior treatments with irinotecan, oxaliplatin, and a fluoropyrimidine. In the study, they received cetuximab starting at 400 mg/m² followed by 250 mg/m² weekly that continued until disease progression or unacceptable toxicity.

Eighty-seven percent of patients developed an acne-like rash during treatment, which is a common side effect. A total of 18% of patients with grade 2 rash and 24% with grade 3 rash responded to cetuximab, whereas only 8% with grade 1 and none with no rash showed a response. Median survival was 13 months with grade 2 rash and 8.9 months with grade 3 rash, compared to 4.9 and 2.1 months with grade 1 or no rash, respectively.

Although researchers are not clear on why this correlation occurs, a study has been launched to look at this issue further.

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Online Family History Tool Organizes Patient Health Information

The U.S. Department of Health and Human Services (HHS) launched a Family History Initiative to encourage Americans to learn about their families’ health histories as a way of promoting personal health and preventing disease. To help gather family history information, HHS released a new, free computer program that organizes important health information into a printout that can be taken to healthcare providers to help determine whether a patient is at higher risk for disease.

A recent survey by the Centers for Disease Control and Prevention revealed that 96% of Americans believe that knowing their family health histories can be beneficial, but only one-third have tried to gather information into the study methods revealed that oral contraceptives reduce the risk of heart disease. They also believe that the breast cancer findings may have been flawed.

Because the studies were from the Women’s Health Initiative, the largest women’s health study in the United States, the results initially were thought to be reliable. However, further investigation into the study methods revealed that much of the data came from women’s memories of which oral contraceptives they used in the past rather than from more reliable medical records.

Breast Cancer News

Research Suggests That Counseling May Enhance Immune Response

Results from a study involving counseling have suggested that patients receiving psychological interventions may have increased immune responses. Researchers at Ohio State University in Columbus began a study of patients with breast cancer to determine whether reducing their stress and eliminating negative health habits could affect breast cancer recurrence. The study enrolled 227 women with stage II or III breast cancer and took baseline assessments; 114 of the women were randomized to an intervention group.

Patients in the intervention group attended weekly small group sessions led by two clinical psychologists who taught them to lower their stress, improve their mood, modify negative health behaviors, and follow their treatment plans. After four months, researchers reassessed patients in the intervention and control groups.

In comparison, patients in the control group had no eating habit changes and actually smoked more.

In addition, researchers looked at natural killer (NK) and T cells and found an unexpected response. Although the numbers of NK and T cells did not increase significantly, women in the intervention group had stable or improved T-cell proliferative capacity whereas women in the control group had decreased capacity. Researchers believe that the improvements in the immune system may be caused by increased mood and lowered stress.

The study was reported in the June 2004 issue of the Journal of Clinical Oncology (Vol. 22, pp. 3570–3580).

Breast Cancer Study Opens Enrollment Nationwide

The Sister Study, which will enroll and follow 50,000 sisters of women diagnosed with breast cancer, has opened enrollment to women across the United States. Pilots of the study have been conducted in Arizona, Florida, Missouri, and Rhode Island since early 2004.

The study will look into the environmental and genetic causes of cancer. Sisters have the same genes and usually have similar experiences and environments, so researchers hope to be able to use information from the study to learn which of these factors cause breast cancer.

Women who are aged 35–74, have never had breast cancer themselves, and have a sister, living or deceased, who had breast cancer, are eligible to enroll. The women will complete several questionnaires and supply samples of their blood, urine, toenails, and household dust. Participants will be in the study for a 10-year period to compare factors surrounding those who develop breast cancer to those who do not.

For more information, visit www.sisterstudy.org.
Study Looks at “Holiday Effect” in Patients Who Died From Cancer

Although the belief is widely held that dying people are able to postpone death until after a major holiday such as Christmas or a significant event like their birthday, a recent study found that no such effect exists.

The study’s researchers believed that if an effect existed, they would be able to find a decrease in deaths before major holidays and dying patients’ birthdays and an increase after these events. They hypothesized that this effect did not exist and analyzed 1,269,474 death certificates from people who died in Ohio from 1989–2000; 309,221 of these records listed cancer as the cause of death.

Because cancer usually is a chronic illness where patients would have the greatest opportunity to postpone death, researchers focused their study on patients who had died from cancer. They selected three events that could have enough importance to cause a patient to postpone death: Christmas, Thanksgiving, and the patient’s birthday. The researchers studied deaths that occurred in the week before and after each important event. If the event had an effect on patients’ deaths, they expected to see a decrease in deaths the week preceding the event and an increase during the week that followed.

The researchers found that no significant difference existed in the proportion of patients dying in the week after each event compared with the week before the event. However, they found that African Americans in Ohio were more likely to die from cancer the week before Thanksgiving than the week after (Caucasians did not have this effect) and that women were more likely to die from cancer in the week preceding their birthdays than the following week (men did not have this effect). The researchers believe that these increases represent artifacts of multiple significance testing.

They found no difference between the number of deaths on Christmas and Thanksgiving compared to the number of deaths on each day in the week before and after each holiday. However, they found an increase in the total number of deaths on a person’s birthday. The researchers attributed this increase to a post hoc analysis that raised the likelihood that it represents an artifact.

The researchers believe that people perceive a holiday effect because of the “availability heuristic, a cognitive bias in which we recall more easily deaths that occurred immediately after important events because they were so striking, compared with the greater number that occurred at random times, and thus mentally assign them an exaggerated prevalence” (p. 3015).

The study was reported in the December 22/29, 2004, issue of JAMA (Vol. 292, pp. 3012–3016).

New Video Teaches Patient Safety for Healthcare Workers

ECRI (formerly the Emergency Care Research Institute) has released a fourth educational patient safety video titled Medical Leaders in Patient Safety. The video, geared toward physicians, was created by physicians from their own experiences.

Physicians play a key role in systematic efforts to improve patient safety and reduce medication errors. Viewers of Medical Leaders in Patient Safety will learn how physicians and hospitals can strengthen patient safety by focusing on four core areas: culture, infrastructure, practices, and technology. This 22-minute video is an effective learning tool for all physicians and hospital administrators.

Medical Leaders in Patient Safety is part of a series of four patient safety videos. The first video, Building System Safeguards for the Safe Use of High-Alert Medications, identifies important safeguards that hospitals should implement to prevent medication errors with high-drug alerts. Patient Safety Requires a Team Effort dramatically illustrates how the everyday actions that a variety of hospital staff perform can endanger patient safety. Patients Play a Vital Role in Patient Safety identifies practical ways that patients can be more actively involved in their own care and safety.

Each video is $125, or the set of four is $400. For more information or to order the videos, visit www.ecri.org/medicationsafety or call 610-825-6000, ext. S891.

Protein Found to Store Iron and Prohibit Cell Death

Researchers at the University of Chicago may have found a way to cause cellular suicide, or programmed cell death. They found that the key to prevention of cell suicide is induction of ferritin heavy chain (FHC), which is a protein that collects and stores iron. Cells need iron to produce the harmful substances that cause death, so increased amounts of FHC reduce cell suicide. Researchers suggested that drugs that modulate FHC or iron metabolism could be effective in treating cancer without the side effects that come with current cancer treatments.

Schering-Plough Issues Drug Warning About Temodar®

According to Schering-Plough (Kenilworth, NJ), medication errors involving Temodar® (temozolomide) capsules have been reported, some of which have resulted in death. The errors involve drug overdosages, which may have resulted from dispensing or taking the wrong number of capsules per day and/or exceeding the five-day dosing schedule.

When dispensing Temodar capsules, healthcare providers must prescribe and dispense with clear instructions on which capsules and how many should be taken each day. Only dispense what is needed for one course, and clearly indicate how many days the patient will be on and off the medication. Patients must understand the number of capsules they should take per day and that the dosing is for five days. Also ensure that patients understand that they will be off the medication for 23 days.

Each strength of Temodar must be dispensed in a separate vial. Based on the dose prescribed, determine the number of each strength of capsules needed for the full five-day cycle. For example, if a patient is prescribed 275 mg per day for five days, he would be given five 250 mg capsules, five 20 mg capsules, and five 5 mg capsules in clearly marked containers and would be instructed to take one capsule of each strength per day.

A patient therapy schedule may be useful and can be obtained from Schering-Plough by calling 888-793-7253. Healthcare providers can use the schedule to write down the number of capsules per day and the number of days on and off therapy.