half their original size, and three minor responses involving less shrinkage. Also, in another two patients with developing tumors, growth was stopped. The estimated median survival for all patients is now more than one year, which is significantly longer than survival times of four to five months in patients with advanced melanoma after treatment failure of initial systemic therapy.

Another encouraging finding of the study was that augmerosen caused relatively few side effects.

The authors avoided speculation on the relevance of their work to other cancers, focusing only on melanoma. However, antisense drugs are currently being developed for use in other tumors. In an editorial in the Journal of Clinical Oncology (2000;18:1809-1811), antisense expert Alan Gewirtz, MD, of the University of Pennsylvania School of Medicine, wrote that antisense drugs may help scientists find effective nontoxic treatments to block the fundamental processes of the cancer cell.

**SMOKING LINKED TO INCREASED COLORECTAL CANCER RISK**

Cigarette smoking may be responsible for a significant percentage of colorectal cancers, according to new evidence uncovered by American Cancer Society (ACS) epidemiologists and published in the Journal of the National Cancer Institute (2000;92:1888-1896).

The researchers found colorectal cancer death rates were lowest among people who had never smoked, intermediate among ex-smokers, and highest among current smokers. The risks of dying of the disease increased with the number of cigarettes smoked daily and the number of years of smoking. Also, the younger the person was when he or she began smoking, the higher the risk.

The ACS team studied data on 312,332 men and 469,019 women collected as part of the Society’s Cancer Prevention Study II. Along with smoking, they took into account other colorectal cancer risk factors, such as a diet low in fruits and vegetables and high in fat, getting too little exercise, and being overweight.

The risk increased when a person had smoked for 20 years, but decreased with each year after quitting smoking. “While it’s best not to start at all, quitting early can still lower the colorectal cancer death rate,” says Ann Chao, PhD, lead author and a research epidemiologist with the ACS.

The study also found that women who smoked were more than 40% more likely to die from colorectal cancer than women who never had smoked, and male smokers had more than a 30% increase in risk of dying compared with men who never had smoked.

Cigarette smoking has previously been linked to cancers of the lung, mouth, pharynx, larynx, esophagus, pancreas, kidney, and bladder. Chao et al say the relationship between smoking and colorectal cancer means that getting early detection tests is especially important for current and former smokers. “Findings from this and other large studies suggest that colorectal cancer should be reconsidered for classification as a smoking-related cancer,” she says.
WOMEN, DOCTORS URGED TO HEED EARLY SIGNS OF OVARIAN CANCER

Women with ovarian cancer would be diagnosed sooner and have a better prognosis if both they and their physicians were more familiar with its symptoms and if appropriate tests were done earlier.

A study, published in Cancer (2000;89:2068-2075) found that most women diagnosed with ovarian cancer did, in fact, have symptoms prior to diagnosis but were unaware the symptoms could be signs of cancer. Physicians often initially attributed the symptoms to irritable bowel syndrome, stress, gastritis, depression, or constipation, or were unable to discover a cause for the symptoms.

Barbara A. Goff, MD, assistant professor of obstetrics and gynecology at the University of Washington in Seattle, and her team examined the results of surveys completed by 1,725 women with ovarian cancer in 46 states and four Canadian provinces.

Almost 90% of the women in the study who were diagnosed with ovarian cancer at an early stage reported having one or more symptoms, such as abdominal pain, bloating, pelvic pain, or back pain. Only 3% of women diagnosed with advanced ovarian cancer did not report any symptoms.

For just 55% of all the women surveyed, the correct diagnosis was made within two months after symptoms appeared. It took three to six months for a diagnosis in 19% of the women, and more than a year for 11%. The more delayed the diagnosis, the more advanced the cancer was when it was identified.

The authors conclude that providers should perform pelvic exams on women with abdominal, pelvic, and constitutional symptoms. In addition, the ACS recommends that a pelvic exam should be part of an annual cancer-related check-up for women 40 years of age and older. Women 20 to 39 years of age should have a cancer-related check-up every three years.

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