Resveratrol Suppresses Prostate Cancer Development

Researchers from the University of Alabama at Birmingham have shown that prostate cancer-prone mice fed resveratrol experience significant protection against development of the disease. Found in red wine and some fruits and vegetables, resveratrol is a polyphenol antioxidant that has previously been shown to extend life span in various organisms. Investigators wondered if its reputed anticancer activities would extend to prostate cancer prevention.

Special mice bred to develop prostate tumors were fed either resveratrol in ordinary chow, beginning at five weeks of age, or a control diet lacking the phytochemical. The animals were examined at 12 or 28 weeks old. Among mice that had received resveratrol in the diet, the incidence of prostate adenocarcinoma was reduced by 7.7-fold. Various biochemical and histological findings indicated that resveratrol suppresses prostate cancer development through a variety of mechanisms.

—Dale Kiefer


Milk Thistle Extract Suppresses Liver Cancer

Silibinin, a flavonoid derived from milk thistle, demonstrates potent activity against human liver cancer in the laboratory, according to a recent report from scientists at the University of California, Irvine. Milk thistle (Silybum marianum) contains silibinin and silymarin—highly bioactive compounds credited with protecting the liver against a variety of insults, such as drug or alcohol-related damage. Silibinin also protects against a variety of other cancers, including prostate, breast, ovary, colon, lung, and bladder carcinomas.

The present study may be the first, however, to demonstrate silibinin’s potent chemopreventive activity against a variety of liver cancer cell lines. Its anticancer effects included reducing cancer cell proliferation and suppressing cell cycle progression, increasing apoptosis (programmed death of cancer cells), and altering the chromatin structure of cancer cells. Liver cancer is on the rise in the United States; silibinin may offer protection against this insidious threat.

—Dale Kiefer


Long-Term Beta Carotene Keeps Mind Sharp

Long-term use of beta carotene helps prevent mental decline, such as dementia. Since cognitive decline is thought to be related to oxidative stress, beta carotene’s antioxidant properties may be responsible for its protective benefit.

In this study, Harvard researchers followed more than 4,000 men who were given either 50 mg of beta carotene every other day or a placebo pill. After an average of 18 years, the men who took beta carotene demonstrated significantly higher scores on several cognitive tests compared with the placebo group.

This study also included a short-term group that was followed for an average of one year. The researchers found no difference in cognitive test results for both groups after this shorter time period, highlighting the importance of continuing beta carotene use for cognitive protection.

“Long-term supplementation [with beta carotene] may provide cognitive benefits,” investigators concluded.

—Marc Ellman, MD

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