Osteoporosis Drug May Stabilize Advanced Prostate Cancer

Treatment with the prescription drug raloxifene (Evista®) may inhibit the growth of advanced prostate cancer, according to a recent pilot study. Raloxifene is typically used to treat osteoporosis in postmenopausal women, and research suggests that it also suppresses prostate cancer growth by decreasing male hormone levels.

In the first part of the study, raloxifene markedly inhibited the growth of human prostate cancers that had been grafted into mice. In the second phase, 21 men with advanced prostate cancer resistant to hormonal and other treatments were given raloxifene at 60 mg per day. Four men withdrew from the study early, leaving 17 men for evaluation.

After two months of treatment, 12 men discontinued therapy but 5 men (28%) had achieved stable disease and continued therapy. Four of the five were treated for four months, and one continued for 17 months before discontinuing therapy. All discontinuations were due to progressive disease, as defined by rising levels of prostate-specific antigen (PSA), though no extra tumor growth was found. Most side effects of treatment were mild.

Raloxifene may thus be a promising therapeutic for potentially incurable prostate cancer.

—Laura J. Ninger, ELS

Limonene, Perillic Acid Counter Spread of Cancer

Two potent plant-derived compounds, limonene and perillic acid, may inhibit the spread (metastasis) of skin cancer to other organs or tissues, report scientists in India. Both biochemicals occur naturally in the essential oils of certain plants; limonene is prevalent in citrus fruit oils, while perillic acid occurs in plants such as sage, peppermint, perilla, and cranberry.

This study utilized an animal model of malignant melanoma. The animals received 10 doses of either limonene or perillic acid, while a control group received no treatment. Limonene administration produced a dramatic 65% reduction in metastatic tumor nodules, while perillic acid therapy led to a 67% reduction in these nodules. Treatment with limonene or perillic acid also reduced levels of two biomarkers associated with poorer cancer prognosis.

These findings suggest that limonene and perillic acid may protect against the spread of the deadliest form of skin cancer.

—Elizabeth Wagner, ND

Melatonin May Protect Against Breast Cancer

Melatonin may protect women against breast cancer, according to a recently published paper. A hormone secreted by the pineal gland in the brain, melatonin helps regulate sleep-wake cycles and functions as a potent antioxidant.

In this study, scientists utilized laboratory animals with tumors made up of human breast cancer cells. The rats were then injected with blood samples from healthy women. These samples contained varying concentrations of melatonin, depending on the time of day they were collected.

When the rats were injected with blood samples that were low in melatonin, tumor growth increased. The low-melatonin blood samples were collected during the day or at night after bright light exposure. When scientists injected the animals with blood samples that were high in melatonin, tumor growth slowed significantly. The high-melatonin samples were collected at night after total darkness.

These findings suggest that higher blood levels of melatonin may protect women against breast cancer. Since melatonin levels can be suppressed by exposure to bright light at night, these results could explain the observation that women who work night shifts have an increased risk for breast cancer.

—Robert Gaston