An article published online in the journal Breast Cancer Research and Treatment reveals that curcumin and piperine from black pepper help inhibit the growth of stem cells that fuel breast cancer.*

Researchers at the University of Michigan compared the effects of varying concentrations of curcumin and piperine administered to cultured breast cells to a control substance. They found a reduction in markers for stem cells in cultures treated with the lowest concentration of curcumin, and complete inhibition at twice that concentration. Piperine also demonstrated an inhibitory property, although the effects were not as pronounced as those elicited by curcumin. The addition of piperine to curcumin resulted in a reduction in stem cells that was greater than either agent alone, while having no effect on normal cell development.

The report is the first to conclude that curcumin and bioperine could help prevent cancer by targeting stem cells.

Editor’s note: Bioperine is sometimes added to curcumin supplements to increase the absorption of curcumin.

—Dayna Dye

Reference

Milk Thistle Shows Protective Effect Against Chemo-induced Liver Inflammation

A study described in an article published online in the journal Cancer reveals that the herb milk thistle, which contains the liver protective compound silibinin, reduces inflammation of the liver in children receiving treatment for acute lymphoblastic leukemia (ALL).

In a double-blind trial, Kara Kelly, MD, of the New York-Presbyterian Hospital/Columbia University Medical Center and her colleagues randomized 50 children with inflammation of the liver due to chemotherapy for ALL to receive a placebo or an extract containing one part silibinin to two parts phosphatidylcholine for 28 days. One month after treatment, the liver enzyme AST was significantly lower in children who received milk thistle and a trend toward lower ALT enzyme levels than those measured at baseline was observed compared to the placebo group.

“Our results are promising as there are no substitute medications for treating liver toxicity,” Dr. Kelly stated.

Editor’s note: Milk thistle has been available as over-the-counter supplements (silymarin and silibinin) for many years, and is also used to help protect the liver in other conditions.

—Dayna Dye

Reference

Curcumin Shows Chemopreventive Potential for Prostate Cancer
In a recent study done by the Laboratoire de Biologie Moléculaire et Cellulaire du Cancer, Hôpital Kirchberg in Luxembourg, researchers tested the efficacy of curcumin as part of a chemoprevention regimen for prostate cancer.* Curcumin is the principal curcuminoid of the Indian spice turmeric. It is a natural compound that may interfere with prostate cancer proliferation and metastasis development.

The researchers found that it also regulates the inflammatory response through the inhibition of pro-inflammatory mediators and the NF-kappaB signaling pathway. These results are consistent with this compound’s ability to induce pro-apoptotic proteins and to downregulate the anti-apoptotic counterparts. Curcumin is also reported to be a good inducer of prostate cancer cell death by apoptosis. The study concluded that curcumin appears to be a non-toxic alternative for prostate cancer prevention, treatment or co-treatment.

—Jon Finkel

Reference
