Curcumin Holds Prostate Cancer in Check by Preventing Metastasis

By John Phillip, Natural News

Cancer continues to be the second leading cause of death in America and Western Europe, and prostate cancer will affect one in six men during the course of their lives. Most people with cancer die not because of the primary tumor, but because the cancerous cells have traveled to distant points throughout the body in a process known as metastasis. Prostate cancer normally progresses very slowly, and as long as it does not metastasize, it can be controlled through diet and lifestyle modifications.

Nature provides us with a number of natural compounds that have proven effective in controlling the division and replication of cancerous growths. One of the most promising is curcumin, the anti-inflammatory, bioactive extract from the curry spice, turmeric. A research team from the *Ludwig-Maximilians University* in Munich, Germany has published the result of a study in the journal, *Carcinogenesis* that shows how curcumin inhibits the formation of metastases in prostate cancer tissues and other cancer lines as well.

In prior studies, lead researcher, Dr. Beatrice Bachmeier has demonstrated that curcumin significantly reduces the incidence of lung cancer metastasis in breast cancer patients, and wanted to expand her scope to determine if men suffering from prostate cancer would benefit in a similar manner. Statistics show that prostate cancer is one of the most prevalent malignancies in the Western world, and is often diagnosed only after metastatic tumors have formed in other organs. In three percent of cases, these metastases are lethal.

Curcumin alters gene expression to negate the carcinogenic effects of pro-inflammatory proteins

The study was designed to determine the efficacy of curcumin in the prevention of prostate cancer metastases, and to determine exactly how the compound worked at the cellular level. Both prostate and breast cancer lines are associated with an increase in the pro-inflammatory cytokines, CXCL 1 and CXCL 2, and are believed to spread throughout the body to other organs and tissues through the release of these chemical messengers.

The study team found that curcumin alters the expression of these two destructive proteins and directly inhibits the metastatic spread of prostate cancer cells. Dr. Bachmeier concluded of the current and past studies on cancer cell propagation: *"Due to the action of curcumin, the tumor cells synthesize smaller amounts of cytokines that promote metastasis... as a consequence, the frequency of metastasis formation in the lungs is significantly reduced, in animals with breast cancer, as we showed previously, or carcinoma of the prostate, as demonstrated in our new study."*

This study clearly demonstrates the importance of natural compounds such as curcumin to prevent the development and spread of both prostate and breast cancer lines through metastasis. The study authors indicated that up to eight grams per day of supplemental curcumin can be used safely. Most nutrition experts recommend 400 to 800 mg of a 95 percent standardized dosage be used as a natural agent to protect against cancer development and metastasis.

Sources for this article include:

http://carcin.oxfordjournals.org
http://www.sciencedaily.com/releases/2012/10/121012112152.htm