

Riddle Me This

Health Sciences Institute e-Alert

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Dear Reader,

It's a puzzle.

For some years now, scientists have known that the inflammation that triggers arthritis pain is prompted by an enzyme-protein complex called cyclooxygenase-2 (COX-2). They also know that when COX-2 is inhibited, inflammation and pain are reduced.

So here's the puzzle: Drugs such as Vioxx and Celebrex effectively block COX-2 and bring relief to arthritis patients, but as we've seen over the past few weeks, the side effects can have dire, even fatal consequences.

The solution to the puzzle is obvious: Inhibit COX-2 without raising heart attack risk, without damaging the liver or kidneys, and without upsetting the digestive tract. Mainstream drugs haven't solved this problem, but there's an herbal formulation that may be able to. And according to current research, this natural COX-2 inhibitor could even be an effective cancer-fighter.

Putting inhibition to work

Almost a year ago, in the November 2003 HSI Members Alert, I told you about Zyflamend; an herbal formulation that inhibits COX-2. Research on this formulation has produced promising results, with none of the side effects caused by COX-2-inhibiting drugs.

A new Zyflamend study is about to begin, and this one will reveal how effective the formulation might be in another area in which COX-2 inhibitors have been shown to be successful: restraining the growth of cancer cells.

Recently, scientists discovered that cancerous tissues have unnaturally high COX-2 levels. In fact, COX-2 appears to be a key

aspect of inflammation's role in the growth of several cancer types, including breast, lung and colon cancer. Now researchers at the Columbia University Medical Center have begun the first clinical trial of Zyflamend in the prevention of prostate cancer.

The Columbia study is specifically designed to examine the effects of Zyflamend on patients who are diagnosed with prostatic intraepithelial neoplasia (PIN). PIN is a condition in which the cells on the prostate gland's surface divide more rapidly than the rest of the prostate cells. When not treated, the progression of PIN lays the groundwork for the development of prostate cancer.

Researchers at Columbia will examine the use of Zyflamend on nearly 50 men, aged 40 to 75, who have been diagnosed with PIN. The trial period will run for 18 months, so I won't be reporting the results until at least 2006, but the length of this study will provide an excellent test of both the effectiveness and safety of Zyflamend.

Cooling off

The Columbia trial will be led by Aaron Katz, M.D., who also headed up a Zyflamend study I told you about in the Members Alert. In that study, Dr. Katz' team added Zyflamend to a culture of human prostate cancer cells. After 72 hours, the Zyflamend-treated cultures had a 78 percent reduction in the number of cancer cells, compared with untreated cultures. Dr. Katz believes that Zyflamend encouraged apoptosis, or programmed cell death; apparently doubling the activity of a specific protein involved in apoptosis. And even among the remaining cancer cells, reproduction was significantly repressed.

So, what exactly does Zyflamend contain that has this profound effect on cancer cells? The formula is made up of several herbs used for centuries as anti-inflammatories. They include:

- * Holy basil (contains ursolic acid; a COX-2 inhibitor)
- * Turmeric (contains curcumin; a COX-2 inhibitor)
- * Ginger (inhibits both COX-2 and 5-LO, another enzyme cancer cells need to flourish)
- * Green tea (polyphenols reduce COX-2)
- * Rosemary (also contains ursolic acid)
- * Hu zhang (contains resveratrol; a COX-2 inhibitor)
- * Chinese goldthread and barberry (both contain berberine; a COX-2 inhibitor)
- * Oregano (contains more than 30 known anti-inflammatory compounds)
- * Scutellaria (contains a phytonutrients complex; a COX-2 inhibitor)

Treading carefully

With the recent notoriety of Vioxx dangers, you can't help but wonder if any COX-2 inhibitor – whether drug or herb – might pose problems. But when I asked HSI Medical Adviser Martin Milner, N.D., about the risk of gastrointestinal damage with herbal COX-2 inhibitors, he said that using natural plant compounds as opposed to synthetic chemicals generally produces better results