discuss use of such medications as well as all alternative and complementary treatments. Finally, he warns that "regulators must consider effective measures to prevent adulteration of [Chinese patent medicines] in the future."

There have been few reports on these kinds of products in the United States in recent years, particularly since the mid-1990s when California-based Chinese importers cooperated with the California state health authorities to cease importation of specific brands of patent medicines that previously had been found to be adulterated with prescription drugs.

According to acupuncturist and author Jake Fratkin, many Chinese patent medicines are reliably manufactured according to the good manufacturing practices (GMPs) required by the Therapeutic Goods Administration (TGA) of Australia as a prerequisite for import into that country from China.[2] Further, he states that most of the patent medicines that have been analyzed to contain prescription drugs and other contaminants (e.g., heavy metals) have been produced outside mainland China in factories located in Taiwan or Hong Kong. Fratkin's recent book is a clinician's guide to 1,150 Chinese herbal products, made in mainland China, that are available in the United States. Of the 1,150 products, 460 of them meet TGA GMPs and are devoid of adulterants, including pesticide residues. He notes that of the 505 herbal product samples analyzed by the California Department of Food, only 10 contained any conventional pharmaceutical drugs, and these were usually acetaminophen or other antifebrile drugs.[2]

—Mariann Garner-Wizard and Mark Blumenthal

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Vitexina Extract Shows Radioprotective Effect in Breast Cancer Therapy

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It is well known that exposure to high-energy radiation can damage biological systems. Radiation damage is the result of a burst of free radicals that leads to oxidative stress in cells and tissues. Radiation exposure makes it an effective treatment for cancer. However, in the process of damaging cancer cells, healthy tissue is damaged as well. Researchers have continued to search for radioprotectors that will allow radiation to kill cancer cells while leaving healthy cells intact.

The product used in this study, Vitexina (Vietnam Institute of Traditional Medicine and the Pharmaceutical Factory No. 4, Ho Chi Minh City; it is not commercially available in Vietnam), is derived from the mung bean (*Vigna radiata* L. Wilczek [Fabaceae]) which has been traditionally used in Vietnam for detoxification. The product consists primarily of the flavonoids vitexin and isovitexin. The remedy is also used to treat the symptoms of conditions classified as "hot" in traditional medicine, such as dysentery. Vitexina has shown promise as an antioxidant radioprotective agent in a series of experimental studies conducted by the research team of the Vietnam Institute of Traditional Medicine. Mung bean is a common foodstuff in Vietnam and has a large margin of safety.

The study examines the effects of the use of Vitexina as a supportive therapy for breast cancer patients undergoing radiation therapy after initial surgery. Parameters assessed included the general health status of patients during radiation therapy, the radioprotective effects of Vitexina for selected peripheral blood cell classes in breast cancer patients, and the effects on the "cold-hot" status of patients (in reference to the energetics diagnostic approach to traditional Vietnamese medicine).

Patients were divided into two groups of 36; the Vitexina group received 4 capsules (400 mg active compounds) daily during 6 weeks of radiation therapy; those in the placebo group received 4 placebo capsules a day. Six weeks of treatment with Vitexina appeared to improve the general health of patients during the course of treatment. Side effects frequently found in patients exposed to radiation are headache, restlessness, fatigue, poor sleep, and poor appetite. All patients in the Vitexina group reported that side effects were not noticeable, that they had good appetite, and that they slept well during the course of their treatment.

Radiation treatments typically lower the number of peripheral blood cells. A significantly smaller number of patients in the Vitexina group experienced lower platelet count compared to those using the placebo: among those in the Vitexina group, 67% experienced a reduction in platelet counts of under 20%, whereas only 17% of placebo patients experienced that small a reduction. Blood counts, including erythrocytes, leukocytes, platelets, and hemoglobin, were significantly higher in the Vitexina group than in the placebo group. The authors suggest that this lessened effect on blood counts from radiation was due to Vitexina's inhibition of free radical induced lipid peroxidation.

In Vietnamese traditional medicine, as it has evolved alongside modern Western conventional medicine in the past century, radiation is typically found to aggravate "hot" symptoms such as fatigue, restlessness, poor sleep, constipation, and to change the appearance of the tongue. The clinical results of these hot symptoms did not worsen in the Vitexina group during radiation therapy, whereas symptoms ranging from hot to extreme hot were found in almost all patients in the placebo group after 6 weeks of radiation therapy.

The authors conclude that the radioprotective effects of Vitexina observed from the trial suggest that cancer, oxidative stress, and the deficiency-hot syndrome of cancer patients may be related. A potential solution could be to use medicinal plants of the traditional "clearing heat and detoxification" classification, which are commonly rich in flavonoid compounds with antioxidant activity. At the time the paper was written, the authors were beginning a study of breast cancer patients treated with surgery, radiation therapy, and Vitexina to monitor recurrence, survival, and immune responsiveness following treatment.

—Densie Webb, PhD