

Pennsylvania Researchers to Study Acupuncture for Breast, Colorectal Cancer

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PITTSBURGH - The University of Pittsburgh Medical Center has received a pair of grants totaling approximately \$1.9 million from the National Institutes of Health (NIH) and the National Cancer Institute (NCI) for two acupuncture studies. One study will be performed at the university's school of nursing and will examine the effectiveness of acupuncture in reducing menopausal symptoms in women with breast cancer; the other will be performed at the University of Pittsburgh Cancer Institute (UPCI), and will investigate how acupuncture can improve the quality of life in patients with advanced colorectal cancer.

Colorectal and breast cancer are two leading causes of cancer-related deaths in the United States. Breast cancer is the most common cancer among women other than skin cancer, and the leading cause of cancer death among women ages 35 to 54. Colorectal cancer, meanwhile, is second only to lung cancer in terms of the number of cancer-related deaths in the U.S. among both sexes. If detected early enough, however, both types of cancer are highly curable.

In the UPCI study, researchers received \$1.2 million from the NIH to determine what role acupuncture can play in treating patients that have advanced colorectal cancer. Patients at this stage of the disease often suffer a variety of physical and psychological complaints that can greatly reduce the quality of life, and prevent them from taking full advantage of their remaining days with friends and family.

"For many terminally ill colorectal cancer patients, their final months are marred by distressing physical symptoms," remarked Dr. Ellen Redinbaugh, the study's principal investigator. She added that the high hospitalization rates for such patients "indicate a clear need for new interventions to ameliorate their distress and promote their quality of life," and that "acupuncture holds promise as one such technique."¹

Over a four-year period, the researchers plan to recruit 170 patients with metastatic colorectal cancer and a life expectancy of six months or less. The subjects will be randomly assigned to one of three groups. The first group will receive true acupuncture, with needles inserted at points associated with emotional well-being. The second group will receive sham acupuncture at locations on the body not associated with any known acupuncture points. The third group will receive standard cancer care without acupuncture.

Patients in the true and sham acupuncture groups receive a total of 12 acupuncture sessions over four weeks in their homes, with each session lasting about 45 minutes. The patients are then followed another month to see how they've been affected by the therapy.

While quality of life is the focus of the study, the researchers will also study whether acupuncture can reduce or alleviate physical symptoms such as pain, shortness of breath, nausea and vomiting.

"Acupuncture has been used successfully to reduce pain, but there is a lack of well-designed

studies that compare it to other treatment modalities in this patient population," affirmed Dr. Andrew Baum, UPCI's deputy director for cancer control and population sciences. "Studies such as this one are needed to increase scientific understanding of its true efficacy in providing comfort to terminally ill patients."¹

In addition, the researchers will measure levels of cortisol, a hormone found in saliva that indicates psychological distress. Before and after each acupuncture session, the patients will be asked to chew on a thick roll of cotton similar to the type used by dentists, then place the roll in a container and mail it to UPCI for analysis.

"We know cortisol is related to psychological distress," explained Redinbaugh in an interview with the *Pittsburgh Post-Gazette*. "People under a lot of stress typically have higher levels of cortisol."² Conversely, a decrease in cortisol after receiving acupuncture could indicate the treatment had a relaxing effect.

Approximately 20 people have participated in the study to date. Although the results won't be known for several years, Redinbaugh speculated that if acupuncture is found to promote well-being, it could have far-reaching implications for how it is used, and could lead to increased insurance coverage for acupuncture and related services.

While the UPCI study focuses on colorectal cancer, a professor at the University of Pittsburgh School of Nursing is embarking on a randomized, placebo-controlled study on acupuncture and breast cancer. Susan Cohen, DSN, APRN, is the lead investigator for the study, which began last spring and is scheduled to run three years.

Dr. Cohen is considered an authority on acupuncture/menopause research. From 1997 to 1999, at Yale University, she conducted one of the first pilot studies in the U.S. on acupuncture's ability to treat hot flashes, insomnia and nervousness. The results of her work found that acupuncture could decrease the incidence of hot flashes by up to 35%, and insomnia by up to 50%. A followup pilot study conducted by Cohen at Duquesne University revealed significant decreases in hot flashes in women receiving acupuncture compared to those who did not.³

Building on the results of those studies, Cohen secured \$685,000 in funding from the NCI to investigate the effectiveness of acupuncture in managing symptoms for women who experience menopause following, or as the result of, chemotherapy for breast cancer.

"This study has to do with symptoms secondary to treatment, in this case, studying women between the ages of 35 and the normal age of menopause, which in this country is about 51," Cohen told the *University Times*. "Once they go through chemotherapy for breast cancer, a high proportion of women go into menopause. Below 35, they don't tend to do that. So, menopause in this group of women is in fact a consequence of their cancer treatment, which is why the NCI was interested in this."⁴

In the trial, subjects are divided into three groups. The first group will receive acupuncture at specific points related to menopausal symptoms; the second will receive acupuncture at non-specific points; and the final group will receive "enhanced usual care," consisting of educational sessions designed to teach women about non-hormonal menopausal treatments and healthy living patterns.

Women in the first two groups will undergo 12 acupuncture sessions lasting 20-30 minutes over eight weeks, with three months of periodic followup examinations. Treatment is delivered by a

state-licensed acupuncturist.

To date, Dr. Cohen has gathered data on 27 women, divided into three groups of nine. She hopes to recruit a total of 81 women in the next few months, and will release the results after the study is concluded in April 2004.

Participants Wanted

Both trials are currently recruiting patients. For further information on the colorectal cancer study, call (412) 647-3555. To learn more about the breast cancer study, call (412) 624-4597. Interested parties may also send an e-mail to Clare Collins at the University of Pittsburgh Medical Center at collcx@upmc.edu.

References

1. Study examines acupuncture to alleviate symptoms for advanced colorectal cancer patients. EurekAlert news release, March 4, 2003.
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