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# Acupuncture as a Treatment Modality for the Management of Cancer Pain: The State of the Science

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Cancer pain can result from the direct effects of disease as well as a consequence of cancer treatment. Levy, Chwistek, and Mehta (2008) described the complex nature of pain in cancer, noting that “chronic pain is a frequent complication of cancer and its treatments and is often under reported, under diagnosed and under treated” (p. 401). Pain may be caused by the cancer itself or as a result of treatment, such as chemotherapy-induced peripheral neuropathy. In seeking effective pain management modalities, acupuncture must be explored as an option to determine its effectiveness and to assess whether medical professionals should recommend this treatment for patients with cancer. As patients seek knowledge about the management of their disease, many look toward complementary medicine for symptom management (Bardia, Barton, Prokop, Bauer, & Moynihan, 2006) and nurses must be broadly informed about all modes of effective pain management.

The establishment of acupuncture as a treatment modality dates back more than 3,000 years to its origins in China and is a primary constituent of traditional Chinese medicine that only began to enter the mainstream realm of Western medicine in the 1970s. Acupuncture involves insertion of sterile needles along established meridians in the body to allow flow of energy, known as qi, to create balance between yin and yang. Although this differs significantly from the way health is viewed in Western medicine, in traditional Chinese medicine, regulation of spiritual, emotional, mental, and physical health are affected by this vital energy (National Center for Complementary and Alternative Medicine [NCCAM], 2009).

Western healthcare providers lack understanding about acupuncture's place in cancer pain management, primarily from a lack of research evidence regarding its efficacy and safety in treating cancer-related pain (Lu, Dean-Clower, Doherty-Gilman, & Rosenthal, 2008).

The biologic mechanism by which acupuncture influences pain has been illustrated in mice models (Lee

**Purpose/Objectives:** To explore the current state of the science regarding acupuncture as a treatment modality for cancer pain.

**Data Sources:** PubMed and CINAHL® databases were searched, as were Web sites from the National Cancer Institute, the National Institute of Health's Complementary and Alternative Medicine Program, and the American Cancer Society.

**Data Synthesis:** This article synthesizes nine years of published research on the use of acupuncture as an adjunct treatment for the management of cancer pain.

**Conclusions:** Findings suggest a lack of level I evidence regarding the use of acupuncture as a cancer pain treatment modality. The majority of evidence is level III or higher; therefore, causality cannot be inferred.

**Implications for Nursing:** Future research should focus on level I and level II evidence, controlling for variables to strengthen validity, and addressing sample size to enhance the generalizability of results. Nurses should be knowledgeable about the state of the science evidence available to assist patients in making educated decisions.

et al., 2009). Mice were inoculated with sarcoma cells around the sciatic nerve to generate a neuropathic pain. Magnetic resonance imaging confirmed that cancer cells were present. A control group did not receive electro-acupuncture (acupuncture with the proximal end of the needle connected to an electric stimulator), whereas the experimental group was treated with electro-acupuncture daily for nine days at 30-minute intervals. Levels of substance P (a neurotransmitter associated with inflammation and pain) were found to be decreased in the group treated with electro-acupuncture. Beta-endorphin levels, endogenous opioids, and naturally occurring pain relievers were increased in mice that were treated with electro-acupuncture when compared with the control group.

Acupuncture's contribution to pain management has generally been studied as a complementary rather than alternative treatment for cancer pain. In an article