

# Immune responses to guided imagery during breast cancer treatment.

Friday, 08 February 2008

Researchers from the University of South Florida College of Nursing in Tampa completed a pilot study indicating that relaxation and guided imagery could heighten immune function as shown by increased natural killer cell activity (please archive under cancer/oncology and guided imagery..) Researchers from the University of South Florida College of Nursing in Tampa completed a pilot study to see if relaxation and guided imagery had an effect on immune function, as measured by increased natural killer cell activity and other biochemical indicators.

Twenty-eight breast cancer patients, 25 - 75 years old, with a diagnosis of stage 0, 1 or 2 breast cancer, were recruited for the study, which had a pre-test, post-test design. They were randomly assigned to either the experimental group, which received relaxation and guided imagery, or the control group, which received standard care.

Effects were measured by several biochemical assays of natural killer cell function. (For those of you who care about these particulars, the study measured natural killer (NK) cell cytotoxicity and IL-2-activated NK cell activity prior to surgery and 4 weeks postsurgery. NK cell activity was measured using a 15-hr incubation chromium release assay. Cytotoxicity of NK cells was measured against chromium-labeled K-562 target cells. IL-2 was used to enhance reactivity of NK cells against tumor cells. After incubation for 15 hr, cytotoxicity was measured through the release of radioactive chromium.)

The study found significant differences between groups at 4 weeks postsurgery, suggesting that a relaxation/guided imagery intervention may indeed have an effect on heightening immune function and certainly NK cell cytotoxicity and NK cell cytotoxicity after activation with IL-2 in patients undergoing surgery for breast cancer.

*Citation: Lengacher CA, Bennett MP, Gonzalez L, Gilvary D, Cox CE, Cantor A, Jacobsen PB, Yang C, Djeu J. Immune responses to guided imagery during breast cancer treatment. Biological Research for Nursing. 2008 Jan; 9 (3): pages 205-14. clengach@health.usf.edu*