G3.1: Stress Management in Women Newly Diagnosed with Breast Cancer: Preferred Method, Efficacy, and Impact of Practice on Immune Responses

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Introduction: Cancer patients often experience high levels of stress, which can alter physiological responses and health outcomes. Stress management (SM) can be beneficial, but research findings have been inconsistent. Reasons for inconsistency may include variability in preference to SM methods and the extent of practice. The aims of this study were to: (1) examine the efficacy of an 8-week SM program in reducing stress and changing salivary cortisol and secretory IgA (sIgA); (2) describe patients’ preference for the methods of SM; and (3) examine the impact of the extent of SM practice on immune responses.

Method(s): Forty nine women newly diagnosed with breast cancer participated in an 8-week SM program weekly and were asked to continue their practice. Using a repeated measures design based on biobehavioral framework, data were collected before and after each session of SM during the intervention and at 10 months post SM. The extent of SM practice was assessed biweekly for 10 months following SM. Cortisol and sIgA were measured from saliva, and immune responses were measured from peripheral blood using standard immunoassays. Data were analyzed by general linear mixed model and hierarchical regression.

Results: All SM sessions significantly reduced stress. Most preferred methods of SM were deep breathing as primary, often combined with imagery as secondary method. SM sessions decreased salivary cortisol and increased sIgA, but these changes did not reach statistical significance. Most importantly, however, the extent of SM practice over 10 months had the significant impact on immune responses of natural killer cell activity, lymphocyte proliferation, and interleukin-2, -4, and -10 production, after controlling for the effects of covariates.

Discussion & Conclusions: SM is effective in stress reduction, and patients most preferred deep breathing and imagery as the methods of SM. Persistent long-term practice of SM has significant positive effects on immune responses in women with breast cancer. Thus, adherence to SM practice using own preferred methods should be recommended to patients undergoing and recovering from cancer treatment.
Abstract History:
This abstract has not been presented or accepted for presentation in whole or in part at the SNRS or other scientific meeting.

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