Medical Xpress

Fatigue, a common side effect of breast cancer treatment, evaluated in novel patient study

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Although the prevalence and impact of cancer-related fatigue has been well established, very little is known about its predictors, mechanisms for development, and persistence post-treatment. A new research study at the Cedars-Sinai Samuel Oschin Comprehensive Cancer Institute, in partnership with UCLA, is aimed at identifying breast cancer patients most susceptible to post-treatment fatigue by measuring biological, behavioral and social risk factors.

"Understanding who is at risk for post-treatment fatigue, and why, is the first critical step in the development of personalized, targeted interventions for the treatment and prevention of breast cancer-related fatigue," said Arash Asher, MD, director of cancer rehabilitation and survivorship at the Cedars-Sinai Samuel Oschin Comprehensive Cancer Institute and the medical center's primary investigator on the study. "It is our hope to identify the biological and behavioral risk factors that contribute to a patient's overall risk for fatigue."

The research study aims to identify biological factors that may cause more severe fatigue in patients post-treatment. Among the biological markers studied, researchers will evaluate the role of inflammation as a key mechanism for cancer-related fatigue. Extensive research has shown a correlation between inflammatory markers in the blood and levels of fatigue among patients during and after breast cancer treatment.

The study also will examine psychological factors, including a history of depression and early-life stressors, that may increase risk for developing post-treatment fatigue in women with early-stage disease.

"By identifying women who are at risk for post-treatment fatigue, our multidisciplinary breast cancer team can work to develop targeted therapies to prevent or ameliorate this disabling symptom," said M. William Audeh, MD, MS, medical director of the Wasserman Breast Cancer Risk Reduction Program at the Samuel Oschin Comprehensive Cancer Institute breast cancer program. "By providing a deeper understanding of genetic and biological disease characteristics, as well as risk profiles, the study may also lead to highly personalized breast cancer treatments for each individual diagnosed."

Patients will be evaluated just after diagnosis and surgery and prior to the start of chemotherapy, radiation therapy and hormonal treatments. In this narrow window of time, patients will take part in physical and psychosocial evaluations that examine genetic, biological and psychosocial factors that may cause inflammation and worsen fatigue. Patients will be followed for 18 months after treatment completion and evaluated on a six-month basis.

This study, known as the RISE Study (Research on Inflammation, Stress and Energy Study), was created by principal investigator Julienne E. Bower, UCLA associate professor of Psychology and Psychiatry/Biobehavioral Sciences. The study is funded by the National Cancer Institute.

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