Skeletal Muscle Mass Loss During Cancer Treatment: Differences by Race and Cancer Site

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OBJECTIVES: To examine skeletal muscle mass change in a racially diverse sample of patients undergoing cancer treatment, determine significant predictors of muscle mass loss, and explore the interaction of race and cancer site.

SAMPLE & SETTING: A retrospective analysis was conducted for 212 patients seeking treatment at a university hospital clinic.

METHODS & VARIABLES: Skeletal muscle mass index (SMI) was determined by computed tomography at the time of cancer diagnosis and with cancer treatment.

RESULTS: One hundred thirty-four patients (63%) had SMI loss with cancer treatment. Race and cancer site were found to be significant predictors of SMI loss. Compared to other racial groups, non-Hispanic Black (NHB) patients had the greatest SMI loss (p < 0.001) with cancer treatment. NHB patients with rectal cancer experienced the greatest SMI loss compared to patients of other races and cancer types.

IMPLICATIONS FOR NURSING: To improve survivorship care for patients with cancer, it is essential to develop strategies for assessing and managing skeletal muscle mass loss throughout treatment, particularly for NHB patients with rectal cancer.

KEYWORDS oncology; muscle mass; rectal cancer; race; non-Hispanic Blacks

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