Clinical Predictors of Fatigue in Men With Non-Metastatic Prostate Cancer Receiving External Beam Radiation Therapy

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**Background:** Fatigue is one of the most distressing symptoms experienced by people with cancer receiving radiation therapy.

**Objectives:** The goal of this study is to evaluate clinical predictors of worsening fatigue during external beam radiation therapy (EBRT) in men with non-metastatic prostate cancer.

**Methods:** Thirty-five men with non-metastatic prostate cancer scheduled for EBRT were followed at baseline, midpoint, and completion of EBRT. The Functional Assessment of Cancer Therapy–Fatigue scale was administered. Demographic and clinical data were obtained by chart review. Paired t-tests, correlations, general linear models, and logistic regressions were used to determine associations between fatigue scores and clinical data.

**Findings:** Red blood cells, hemoglobin, and hematocrit levels were highly intercorrelated and, therefore, were grouped as one composite variable termed *heme*. Heme levels at baseline and androgen-deprivation therapy (ADT) were significantly correlated with worsening of fatigue symptoms from baseline to midpoint and endpoint. ADT alone did not have a significant correlation with fatigue, but it indirectly affected fatigue levels by influencing heme markers as treatment progressed. These findings provide evidence that hematologic markers and the use of ADT assist in predicting radiation therapy-related fatigue and guide symptom management.