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Study Performed at Vanderbilt University Medical Center, Nashville, TN, USA.

Title: Sarcopenia Does Not Affect Survival Or Outcomes In Soft-Tissue Sarcoma.

Background: Sarcopenia is associated with decreased survival and increased complications in carcinoma patients but has not been studied in soft-tissue sarcoma (STS) patients.

Purpose: We hypothesized STS patients would have decreased survival; increased incidence of wound complications and increased length of post-resection hospital stay (LOS).

Methods: A retrospective, single-center review of 137 patients treated surgically for STS between 2000 and 2008 were identified. Sarcopenia was assessed by measuring the cross-sectional area of bilateral psoas muscles (total psoas muscle area, TPA) at the level of the third lumbar vertebrae on a pretreatment axial computed tomography scan. The association between TPA and survival was assessed using cox proportional hazard model. A logistical model was used to assess the association between TPA and wound complications. A linear model was used to assess the association between TPA and LOS. Gender-based subgroup analysis was also performed.

Results: TPA was not an independent predictor of overall survival ($p=0.94$), increased LOS ($p=0.66$), greater incidence of post-operative infection ($p=0.56$), or other wound complications ($p=0.14$). Patient age ($p=0.01$), tumor size ($p=0.01$) and grade ($p=0.01$) were independent predictors of overall survival.

Conclusions: Sarcopenia does not appear to impact overall survival, LOS or wound complications in patients with STS.