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.