Abstract:
Cancer cachexia is a paraneoplastic syndrome comprising involuntary weight loss and muscle depletion (sarcopenia). Although weight loss has been associated with poor clinical outcome, there is only limited information on the prevalence and prognostic impact of sarcopenia in ovarian cancer so far. Total skeletal muscle mass was determined by computed tomography image analysis of the third lumbar skeletal muscle cross-sectional area in 128 patients with advanced serous ovarian cancer. Longitudinal change of muscle mass was studied in 209 consecutive computed tomography scans from 43 patients. Association with survival was determined using Cox proportional hazards model. The prevalence of sarcopenia at first diagnosis was 11% (12/105; 95% confidence interval [CI], 6%-20%). Sarcopenic patients had a significantly reduced progression-free (hazard ratio, 2.64; 95% CI, 1.24-5.64; P = 0.012) and overall survival (hazard ratio, 3.17; 95% CI, 1.29-7.80; P = 0.012). On multivariable analysis, these prognostic effects remained significant after adjustment for age, International Federation of Gynecology and Obstetrics stage, and postsurgical residual disease. Longitudinal analyses identified both patients with loss and gain of muscle mass. However, change in muscle mass over time was not associated with survival. Baseline sarcopenia is a prognostic factor in advanced serous ovarian cancer. Identification of
sarcopenic patients and early enrollment in physical or nutritional education programs might thus be a feasible way to improve outcome and should be further evaluated in prospective clinical trials.