

SIOG 2017 - Abstract Submission

Track 3: Supportive & palliative care

Fatigue

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CHARACTERISTICS ASSOCIATED WITH PHYSICAL FUNCTION TRAJECTORIES IN OLDER ADULTS WITH CANCER RECEIVING CHEMOTHERAPY: A MULTICENTER PROSPECTIVE COHORT STUDY

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Introduction: Functional decline during cancer treatment is associated with poor quality of life and decreased survival. Prior studies of physical function in older adults with cancer evaluated associations of demographic and clinical characteristics with functional decline during chemotherapy (CTX), but the impact of symptoms on functional decline remains unknown. Additionally, prior studies compared physical function at only two time points and did not include multiple assessments to map the full trajectory of physical function.

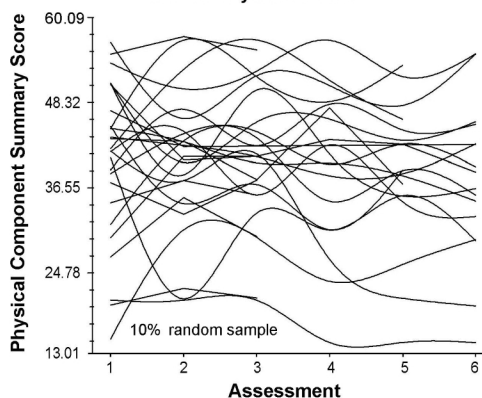
Objectives: To determine which demographic, clinical, and symptom characteristics are associated with initial levels as well as trajectories of physical function at six time points over two cycles of CTX in adults age ≥ 65 with breast, gastrointestinal, gynecologic, or lung cancer.

Methods: A total of 363 older adults with cancer were recruited from two Comprehensive Cancer Centers, one Veterans Affairs hospital, and four community oncology programs in the US. All patients received CTX within the preceding four weeks and were scheduled to receive at least two additional cycles. For each CTX cycle, changes in physical function were assessed prior to CTX administration and at one and two weeks after CTX administration using the Medical Outcomes Study Short Form-12 Physical Component Summary (PCS) score. PCS scores can range from 0 (lowest) to 100 (highest level of functioning). To evaluate common symptoms at enrollment, patients completed questionnaires on morning and evening fatigue, morning and evening energy, pain, depression, trait and state anxiety, attentional function, and sleep disturbance. Multivariable hierarchical linear modeling was used to evaluate for inter-individual variability in initial levels and trajectories of PCS score.

Results: Mean age was 71.4 years (SD 5.5, range 65-90). Patients were predominately female (68.3%). Gastrointestinal was the most common cancer type (32.8%) followed by breast (23.1%), lung (22.3%), and gynecological cancer (21.8%). Inter-individual variability in PCS scores (spaghetti plot) was found with mean initial PCS score of 40.5 (SD 0.45). On average, PCS scores declined 0.21 points linearly at each subsequent time point. Lower initial PCS scores were associated with older age, higher comorbidity, lack of active employment, lack of regular exercise, lack of trait anxiety, lower attentional function, presence of pain, morning fatigue, and lack of evening energy. Only morning fatigue ($p = 0.04$) and initial PCS score ($p = 0.01$) were associated with functional decline over time. Of note, clinical characteristics including Karnofsky Performance Status score, cancer type, number of prior cancer treatments, and presence of metastatic disease were not associated with either initial levels or trajectories of PCS scores.

Image:

Spaghetti plot of individual PCS score trajectories over two cycles of CTX



Conclusion: While several symptoms were associated with initial PCS scores in older adults with cancer receiving CTX, morning fatigue was the only symptom associated with functional decline. Regular assessment of fatigue, specifically morning fatigue, and evidence-based interventions should be considered to maintain physical function in older adults during CTX.

Disclosure of Interest: None Declared

Keywords: chemotherapy, functional decline, morning fatigue, physical function