Prevalence of functional deficits among adults with multiple myeloma and normal perceived performance status

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Background

- Multiple myeloma (MM) is the 2nd most common hematologic malignancy in the U.S. and is disproportionately a disease of older adults, with a median age at diagnosis of 69 years and approximately 40% of new cases developing in those over the age of 75 years.1
- Geriatric Assessment (GA)
  - There is substantial heterogeneity in the process of aging.2
  - Comprehensive GA entails a multidisciplinary evaluation of the older adult's physical capabilities, function, nutrition, comorbidities, cognition, and psychosocial status.
  - Difficult to incorporate into oncology practice due to the need for expertise in geriatrics and time commitment (approximately 2 hours to complete).3
  - Brief GAs have therefore been developed to evaluate multiple health domains using shorter assessments, often relying to a greater extent on self-reported items.
  - Brief GAs are feasible in oncology care settings and have been shown to identify important deficits even in older adults otherwise thought to have good performance status on routine evaluations.4
  - In MM
    - Scoring systems incorporating functional correlate with treatment tolerance, healthcare utilization, stem cell transplant candidacy, and mortality.4
  - However, the GAs in many studies to date have been limited in scope.

Methods

- University of North Carolina (UNC) Plasma Cell Disorders Registry (ClinicalTrials.gov identifier NCT03717884)42
- Adults age 18 and older with MM were recruited into an observational study from 2018 to 2020.
- Modified Cancer and Aging Research Group (CARG) GA was administered at enrollment.
- Enrollees also completed the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life of Cancer Patients Core 30 questionnaire (QLQ-C30)
  - Scores range 0-100; higher values indicate better function.
  - Data analyzed using descriptive statistics for the full cohort and stratified by Karnofsky Performance Status (score < 80 vs ≥ 80).

Results

- Demographics
  - Among 89 adults, mean age was 69.1 years, 68% were aged ≥ 65 years, and 70% were white.
  - Karnofsky Performance Status (research-staff assessed):
    - 78% KPS ≥ 80.
    - 22% KPS < 80.
  - Time from diagnosis
    - 17% 0-6 months
    - 7% 6-12 months
    - 9% 1-2 years
    - 67% ≥ 2 years
  - Current line of therapy
    - 46% 1st line
    - 40% 2nd-3rd
    - 14% 4th or greater

Discussion

- Using a modified CARG GA and EORTC questionnaire, important functional impairments were identified among adults with MM considered to have a good performance status based on a KPS (≥ 80).
- Future studies should focus on using GA measures for therapy assignment.
  - The relationship between GA parameters and longitudinal changes in therapy will be a subject of future analyses in this cohort.
  - A prospective evaluation of a frailty-adjusted dosing strategy versus standard dosing is ongoing (FITTNeS Trial; NCT03720041).
  - Interventions targeting GA-identified deficits should be evaluated.
  - Recent data support the efficacy of GA-guided supportive care interventions in improving clinically relevant outcomes for older adults with solid-organ malignancies, both in the perioperative setting6 and at the start of new lines of systemic therapy.7
  - Similar studies for older adults with hematologic malignancies (including MM) are lacking.

References

6. Qian CL, et al. ASCO abstract, 2020