

SIOG 2017 - Abstract Submission

Track 1: Solid tumours in the elderly and basic science

Prostate, bladder, kidney, genitourinary cancers

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TOWARD PERSONALIZING CARE FOR OLDER MEN WITH MCRPC (TOPCOP) : THE EFFECT ON PHYSICAL FUNCTION FROM TREATMENT FOR MCRPC

H. Breunis^{1,*}, U. Emmenegger², S. Berry², S. Hotte³, A. Hansen¹, A. Joshua¹, P. Warde⁴, N. Fleshner⁵, G. Tomlinson⁶, N. Timilshina⁶, S. Cheng⁷, K. Akilan¹, S. Garuba¹, S. Khan¹, D. Samaroo¹, O. Samadi¹, S. Baig¹, J. Tavalis¹, M. Rathore¹, M. Klowak¹, S. Alibhai¹

¹Medicine, UHN, ²Medical Oncology, Sunnybrook Health Sciences Centre, Toronto, ³Medical Oncology, Juravinski Cancer Centre, Hamilton, ⁴Radiation Medicine Program, ⁵Surgical Oncology, ⁶UHN, ⁷Medicine, Sunnybrook Health Sciences Centre, Toronto, Canada

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I submit my abstract to be considered for the following award: None

Introduction: The physical effects of treatments in metastatic castrate-resistant prostate cancer (mCRPC) in older men, who are already suffering musculoskeletal toxicities of long-term androgen deprivation, are not well known.

Objectives: To evaluate the effects of treatment with chemotherapy (CHEMO), abiraterone (ABI), or enzalutamide (ENZA) on physical function in men with mCRPC.

Methods: Men age 65 or older were enrolled at two participating academic centres, Princess Margaret Cancer Centre and Sunnybrook Health Sciences Centre in Toronto, Canada. Participants were enrolled in three cohorts in this observational study: mCRPC patients starting CHEMO, ABI, or ENZA. Physical Function (PF) was evaluated objectively with grip strength (using a Jamar dynamometer) and the Short Physical Performance Battery (SPPB, which includes gait speed in 4 metres and 5 timed chair stands). PF tests were administered at baseline and final visit in the 3 cohorts. In the CHEMO cohort PF tests were also administered at alternate cycles, in the ABI and ENZA every 3 to 4 months during treatment. Changes in physical performance over time were analyzed using linear mixed effects regression. The primary comparison time point was at 6 months across all cohorts.

Results: To date 68 participants have been enrolled (CHEMO n=30; ABI n=11, and ENZA n=27) of whom 24 have completed or discontinued treatment. PF data were collected for 24 participants who completed 6 months of treatment or had a final visit and 44 who had PF administered at 6 months on treatment. The mean age of participants receiving CHEMO was 72 years (range 64-90); ABI 77 years (range 64-84), and ENZA 75 years (range 65-90). The median VES-13 score at baseline in the CHEMO cohort was 2 (IQR 1-7), 0 (IQR 0-1) in the ABI cohort, and 1 (IQR 0-3) in the ENZA cohort.

Reasons for discontinuation in the CHEMO cohort were completion of 9 to 10 cycles (n=3), disease progression (n=8), and toxicity or intolerability (n=7). In the ENZA cohort discontinuation was due to disease progression (n=5). Grip strength measured at final or 6 months visit declined in the CHEMO cohort by 2.9% (-8.8%, 1.9%), increased by 0.8% (-5.9%, 4.7%) in the ABI cohort, and declined 10.7% (-17.3%, -1.6%) in the ENZA cohort (p=0.11). Timed chair stands increased 1.2% (-14.9%, 42.6%) in the CHEMO cohort, increased 4.1% (-17.5%, 10.6%) in the ABI cohort, and declined 5.5% (-21.8%, 10.6%) in the ENZA cohort (p=0.53). Gait speed declined 30% (-36.3%, 6.1%) in the CHEMO cohort, 0% (-6.9%, 14.6%) in the ABI cohort, and by 2.6% (-12.7%, 22.3%) in the ENZA cohort (p=0.031).

Conclusion: Although our sample size is limited, Physical Function (particularly grip strength and gait speed) appeared to decline with both CHEMO and ENZA but not with ABI. Gait speed was most affected by CHEMO whereas grip strength was most affected by ENZA. A larger sample is needed to confirm these findings. Study accrual and follow-up continue.

Disclosure of Interest: None Declared

Keywords: Chemotherapy, Gait speed, metastatic castrate resistant prostate cancer, older adults, physical function