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Introduction & Objectives: Metastatic castration-resistant prostate cancer (mCRPC) primarily affects elderly men, in whom therapeutic optimization remains challenging because of the greater likelihood of having comorbidities, polypharmacy and lower tolerance for toxicity. Abiraterone acetate (AA) improved overall survival in patients previously treated with docetaxel, in the castration-resistant setting. The oral route of administration and the safety profile are also advantages in the elderly. We aim to evaluate the effectiveness of AA treatment in the elderly population (aged ≥ 75 years) with mCRPC after docetaxel-based chemotherapy.

Materials & Methods: A single-centered, retrospective study was conducted, including patients with mCRPC who initiated treatment with 1000mg AA and 10mg prednisolone once between October 2014 and April 2019 after docetaxel chemotherapy. Outcomes of interest were prostate-specific antigen (PSA) response rate, time to PSA progression (TTPP), radiographic progression-free survival (rPFS) and overall survival (OS). Toxicities of degree ≥ 3 were reported according to the National Cancer Institute scale, Common Terminology Criteria for Adverse Events, version 4.0. Median time to event and hazard ratio (HR) were estimated using Kaplan-Meier method and Cox model, respectively.

Results: Seventy patients were included, with median age of 71.5 years [48-82], 31.4% (n=22) of whom were elderly, with median age of 78 years [75-82]. At baseline, 18.2% in the elderly and 6.3% in the younger group had modified Charlson Comorbidity Index ≥ 5 . In the elderly group, 68.2% took ≥ 5 medicines and had Eastern Cooperative Oncology Group-Performance Status (ECOG-PS) of 1. In the younger group, 56.3% took ≥ 5 medicines and 66.7% had ECOG-PS of 1. Median time of follow-up was 8 (1-51) months and median time of treatment with AA was 4 (0-41) months. PSA response rate was 50% in the elderly and 31% in the younger. When comparing both groups, elderly patients showed improved TTPP (9 vs 4 months; HR 0.46; 95% CI 0.23-0.91; $p=0.025$). There was no statistic difference concerning OS (12 months in the elderly vs 9 months; HR 0.78; 95% CI 0.43-1.39; $p=0.397$) or rPFS (6 months in the elderly vs 4 months; HR 0.74; 95% CI 0.40-1.37; $p=0.339$). Grade ≥ 3 adverse events occurred in 18% of the elderly and in 15% of patients aged < 75 years; 9.1% and 6.3% patients permanently discontinued AA due to severe toxicity in elderly and younger groups, respectively.

Conclusions: AA was well tolerated in the elderly and there were no significant statistically differences in the OS when comparing these patients with the younger ones, hence proving itself as a relevant therapeutic option for older patients. The improvement verified in TTPP may be related to more indolent disease in the elderly. However, longer follow-up and larger populations are needed to confirm the effectiveness of AA in this context.