

Costa L., Reis J., Valente C., Costa M., Fernandes C., Ribeiro M.J., Meireles S., Augusto I.

University Hospital Center of São João, Dept. of Medical Oncology, Porto, Portugal

Introduction & Objectives: Prostate cancer is quite prevalent in elderly men. These make up a special population of patients due to reduced performance and nutritional status, increased comorbidities and poly medication, which makes them underrepresented in clinical trials. Enzalutamide (EZ) is an androgen receptor antagonist, with the advantage of increasing survival in metastatic castration-resistant prostate cancer (CRPCm), approved both in progression during or after chemotherapy treatment (QT) with Docetaxel (DT) or in QT-naïve patients. The early tPSA response (EPR) is defined as a reduction >50% from baseline by the 1st month of treatment and may be useful in identifying patients with early resistance to EZ treatment. Describe our institution's experience with the use of EZ in the treatment of CRPCm, compare data from its effectiveness and safety among elderly and younger (≥ 70 vs. < 70 years of age) patients. Determine the prognostic value of EPR with EZ in the elderly patient population.

Materials & Methods: Retrospective study of 102 patients with CRPCm who underwent EZ between January 2014 and July 2019. The tPSA values were obtained at the beginning of EZ and after 1 month of treatment. Survival analysis was estimated using the Kaplan-Meier method and the multivariate analysis by Cox regression.

Results: The age of onset of EZ was ≥ 70 in 67 (65.7%) and < 70 years old in 35 (34.3%) patients. EZ was started before and after QT with DT in 56.9% and 43.1% of patients, respectively. Most (79.3%) of the pre-QT group and 47.7% of the post-QT group were ≥ 70 years old. EPR was found in 53.4% of the pre-QT vs. 43.2% of the post-QT group. Adverse events (AE) occurred in 38 (37.3%) patients, 30 of whom were ≥ 70 years old. It was necessary to reduce the dose by 4 in this group and discontinue 3 patients (vs. 1 and 3, respectively, in the < 70 year old group). AEs were more frequent in the post-QT group. There were no significant statistically differences in progression free survival (PFS) and overall survival (OS) at 24 months in patients aged ≥ 70 vs. < 70 years old, whether they had started EZ before QT with DT (OS: 91.1% vs. 83.3%, $p=0.894$; PFS: 20.9% vs. 14.9%, $p=0.442$), or later (OS: 95.2% vs. 91.3%, $p=0.057$; PFS: 20.5% vs. 11.6%, $p=0.189$). OS and PFS at 12 months were significantly higher in the group of elderly people who underwent pre-QT EZ and had EPR (OS: 77.3% vs. 57.5%, $p=0.026$; PFS: 63.6% vs. 17.7%, $p<0.001$). In the multivariate analysis, the EPR maintained positive impact on PFS (HR 0.316; 95% CI 0.106-0.940; $p=0.038$). In the post-QT EZ elderly people group, the EPR wasn't statistically significant neither in OS nor in PFS.

Conclusions: EZ is an effective and safe drug in the treatment of the elderly with CRPCm. EPR may be useful as a prognostic factor in predicting survival results in the elderly population undergoing EZ prior to QT with DT.