



LUZ SAÚDE

Outcomes management in a real world evidence context. The case of ABIRATERONE AND ENZALUTAMIDE IN THE TREATMENT OF METASTATIC CASTRATION-RESISTANT PROSTATE CANCER

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INTRODUCTION

Prostate cancer is currently the one with the highest incidence rate in males in Portugal, representing 20% of new diagnoses of cancer (1). In addition, mortality rates have remained steady for the last decade, at approximately 35% (2).

At present, for patients with metastatic and castration resistant prostate cancer, ESMO and NCCN guidelines recommend Enzalutamide (E) or Abiraterone (A) (3,4). Abiraterone acetate is an antiandrogen drug, used in combination with prednisone or prednisolone, and was approved in Portugal in 2016. Enzalutamide is also an antiandrogen, and was introduced in Portugal in 2016.

We discuss an outcomes management methodology, supporting the follow-up of patients. This involves, namely, (a) measuring relevant baseline traits and (b) outcomes such as: overall survival (OS), treatment duration, patient reported outcomes and adverse events. This research empirically reports the case of patients with metastatic castration resistance cancer, using A or E.

METHODS

This is a retrospective observational study. The dataset includes all appropriate patients undergoing treatment with A or E, from 2012 to 2019. Data is collected in a hospital-based, EHR of Luz Saúde, Portugal. Includes age, staging, ECOG, Gleason, histology, duration treatment and survival. Statistical analysis uses SPSS V23.0 for the overall survival analysis with Kaplan Meyer Curves. QoL data at Luz Saúde is captured with the use of EPIC26 for prostate cancer.

We analyze clinical outcomes that are important for the patients: OS and Quality of Life. We collect the baseline variables in order to use them to explain variation of outcomes, should it arise in the analysis. These decisions have to be taken in advance so that appropriate registration routines are set in place in the due time.

RESULTS

We included 38 men in the A group and 15 in the E group, with a median age at diagnosis of 69 years old.

At diagnosis, a vast majority of patients (more than 97% in both groups) presented a stage IV disease, all of them with at least 1 bone metastasis. Both drugs were used especially in 2nd and 3rd therapeutic lines and the majority of patients had a ECOG 0 or 1. Complete patient criteria and stratification is described on table 1.

Table 1 – Baseline distribution

Clinical characteristics	Abiraterone		Enzalutamide	
	No. Of patients	% of patients	No. Of patients	% of patients
Stage at diagnosis				
IIIb	1	2,6%	1	6,7%
IV	37	97,4%	14	93,3%
Tumor Size (T) at diagnosis				
T2	6	15,8%	4	26,7%
T3	18	47,4%	8	53,3%
T4	7	18,4%	2	13,3%
Tx	7	18,4%	1	6,7%
Lymph node status (N) at diagnosis				
N0	11	28,9%	7	46,7%
N1	17	44,7%	6	40,0%
Nx	10	26,3%	2	13,3%
Metastasis status (M) at diagnosis				
M0	1	2,6%	1	6,7%
M1	37	97,4%	14	93,3%
Histologic grade (G) at diagnosis				
G2 Moderately differentiated	3	7,9%	1	6,7%
G3 poorly differentiated	35	92,1%	14	93,3%
Gleason score at diagnosis				
6	3	7,9%	1	6,7%
7	13	34,2%	8	53,3%
8	6	15,8%	3	20,0%
9	11	28,9%	2	13,3%
10	5	13,2%	1	6,7%
ECOG Baseline				
ECOG 0	22	57,9%	7	46,7%
ECOG 1	14	36,8%	4	26,7%
ECOG 2	2	5,3%	3	20,0%
ECOG 3	0	0,0%	1	6,7%
Therapeutic Line				
1st line	1	2,6%	1	6,7%
2nd line	17	44,7%	9	60,0%
3rd line	14	36,8%	3	20,0%
4th line and following	6	15,8%	2	13,3%

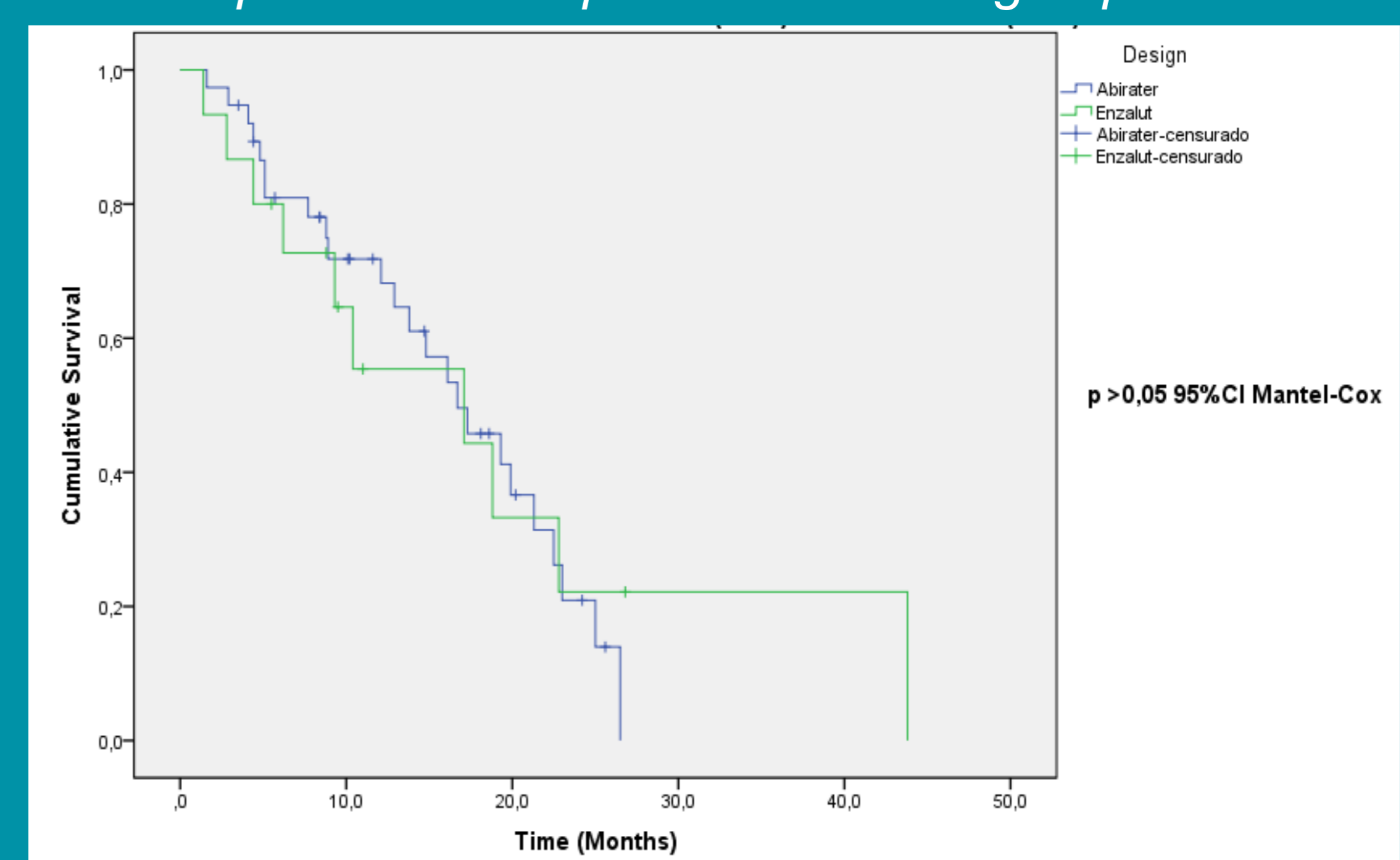
When comparing the the survival of both drugs, both present similar OS, but the median duration of treatment was higher in the A group.

The primary outcomes comparison between the two groups is detailed on table 2. We found no significant difference in outcomes, hence the baseline variables are not regressed against the outcomes to look for source of variations.

Table 2 – Outcomes measures in both groups

	Abiraterone	Enzalutamide
Median Treatment Duration (Months)	6,5	4,3
	95%CI 5,14-7,86	95%CI 1,58-7,02
Overall Survival (Months)	16,7	17,1
Adverse Events (All grades)	45%	53%
Discontinuations due to the AE	5%	13%

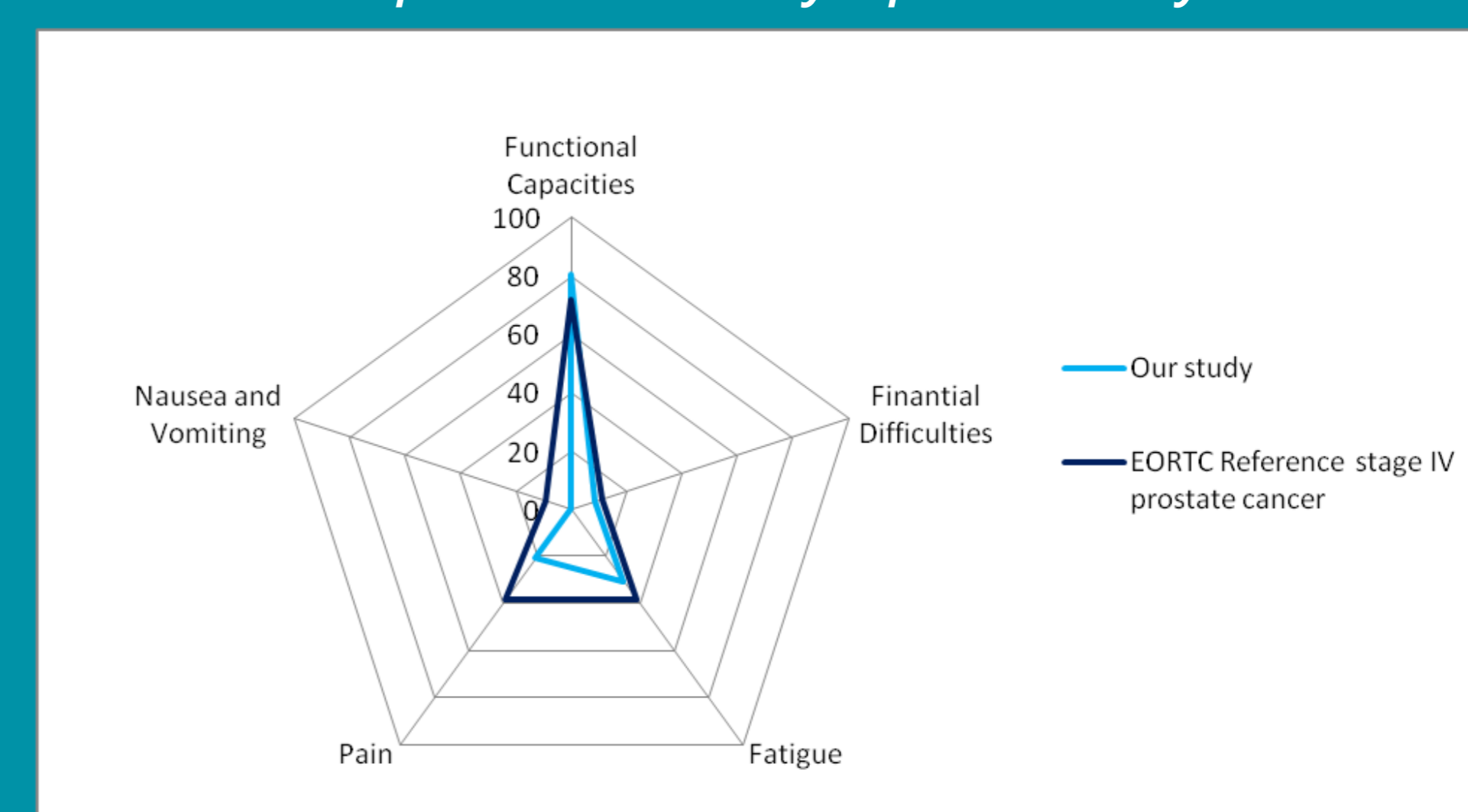
Graph 1– OS comparison between groups



Regarding the QoL analysis with EPIC26, reported Standart Quality of Life score (SQL) was 58,3% in our patients, while the EORTC reference (5) for these group of patients is 62,1%.

The symptom burden in our patients is lower than the reference for pain, nausea and vomiting and fatigue. The comparison of our scores with the EORTC reference is detailed on Graph 2.

Graph 2– PROs symptom analysis



CONCLUSIONS

We aimed and achieved variability and facial validity of the results in spite of having a small dataset. This will reinforce the capabilities of the proposed methodology for doing proper follow up and discrimination among the findings. As a result, by showing that we can capture the distinctive clinical benefits of A and E , and that PROs can be systematically collected for more than 2 years per living patient, we can now incorporate these findings in clinical discussions, risk sharing agreements or policy level arguments. The objective of providing an illustration of our methodology for data collection is achieved.

REFERENCES

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