

Clinical Efficacy of Combination Therapies with Androgen Receptor Antagonists for Treatment of Multiple Refractory Cancers

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Conflict of Interest:
Datar Cancer Genetics Limited offers commercial services in the domain of oncology.

BACKGROUND

- Androgen Receptor (AR) antagonists used in prostate cancer therapy.
- Increasing interest in the use of anti-AR agents in treatment of other cancers such as Triple Negative Breast Cancer and Lung Cancer.
- AR antagonists are usually administered as single agents and rarely in combination with other cytotoxic or targeted agents.

RATIONALE

- Encyclopedic Tumor Analysis (ETA) –guided combination regimens with AR antagonists and cytotoxic, targeted or other endocrine agents may afford clinical benefit for refractory cancers.

APPROACH

- 18 patients with various advanced refractory solid organ cancers,
- Freshly biopsied tumor tissue evaluated for gene mutations (DNA), gene expression (RNA), IHC and in vitro chemoresistance profiling of live tumor cells,
- Treatment response evaluated radiologically to determine Objective Response Rate (ORR), Progression Free Survival (PFS) and Disease Control Rate (DCR).

DEMOGRAPHICS

Table 1. Cancer Types

Cancer Type	Number
Breast	5
Ovary	4
Kidney	2
Liver	2
Head and Neck	1
Lung	1
Prostate	1
Melanoma	1
Sarcoma	1

8 Males, 10 Females Median age : 58 years

Figure 1. All Prior Treatments .

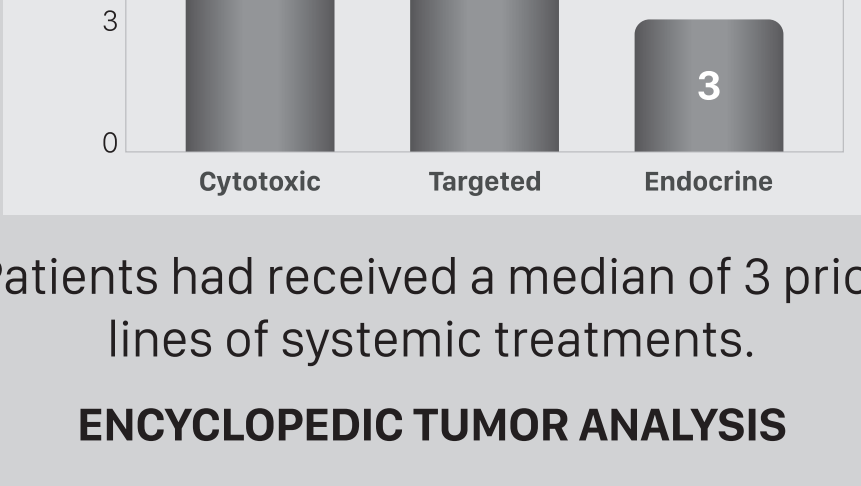
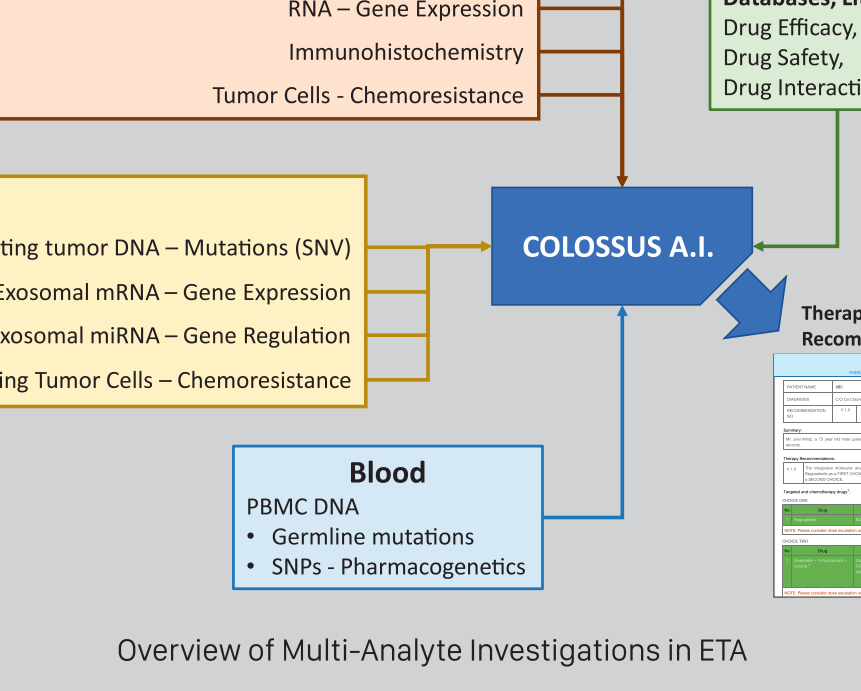


Figure 2. Prior Systemic Treatments.



Patients had received a median of 3 prior lines of systemic treatments.

ENCYCLOPEDIA TUMOR ANALYSIS



Overview of Multi-Analyte Investigations in ETA

ETA INDICATIONS AND GUIDED REGIMENS

Figure 3. AR Antagonists received by patients.

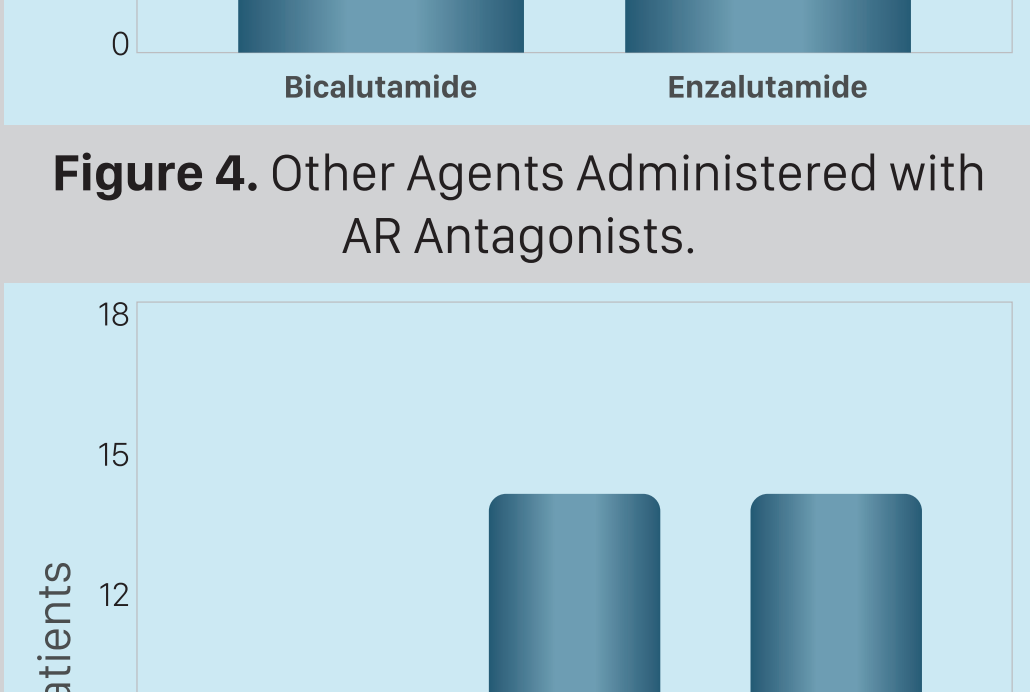


Figure 4. Other Agents Administered with AR Antagonists.

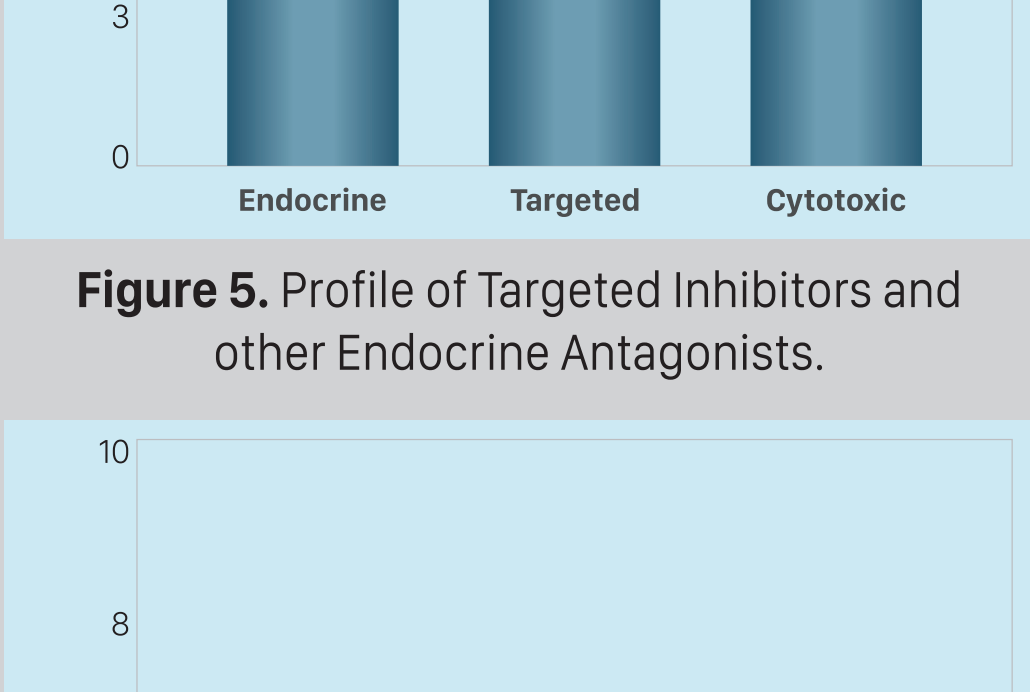


Figure 5. Profile of Targeted Inhibitors and other Endocrine Antagonists.

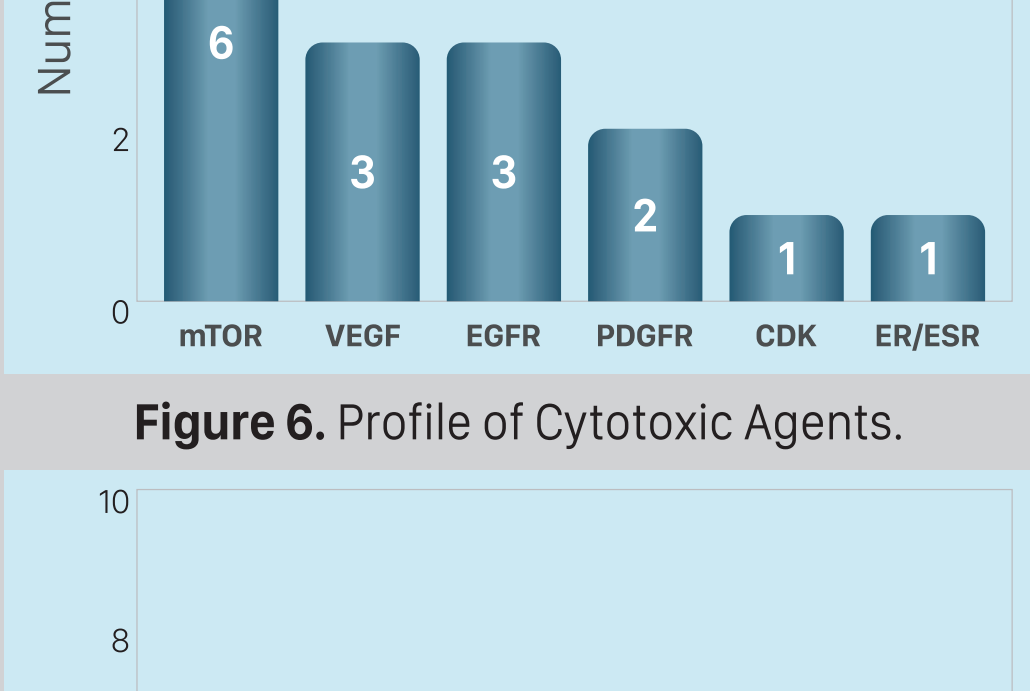
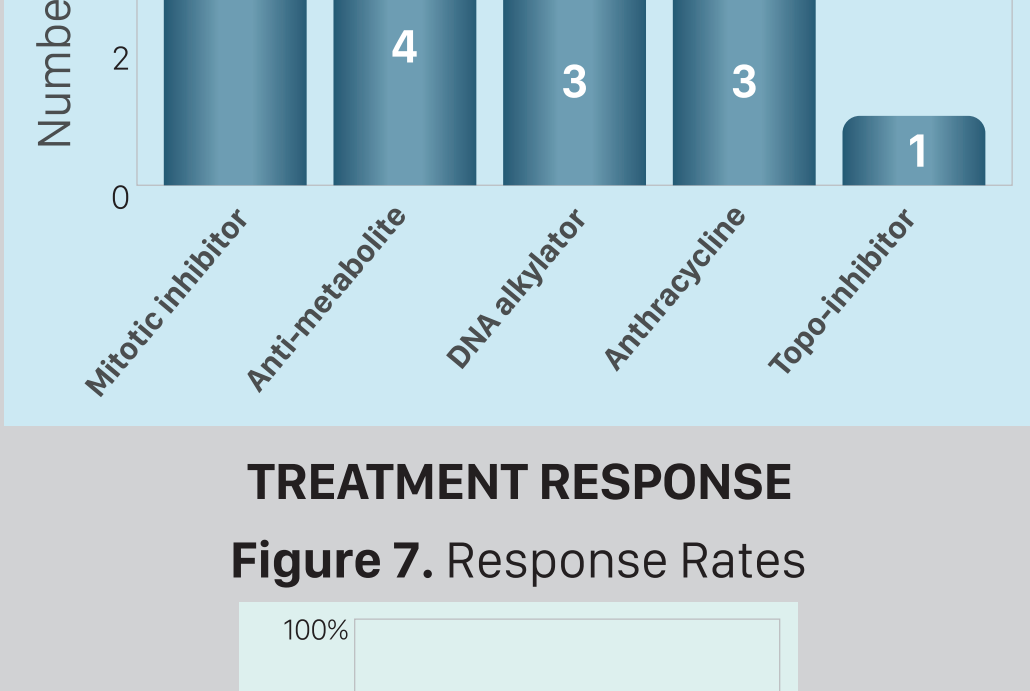


Figure 6. Profile of Cytotoxic Agents.



TREATMENT RESPONSE

Figure 7. Response Rates

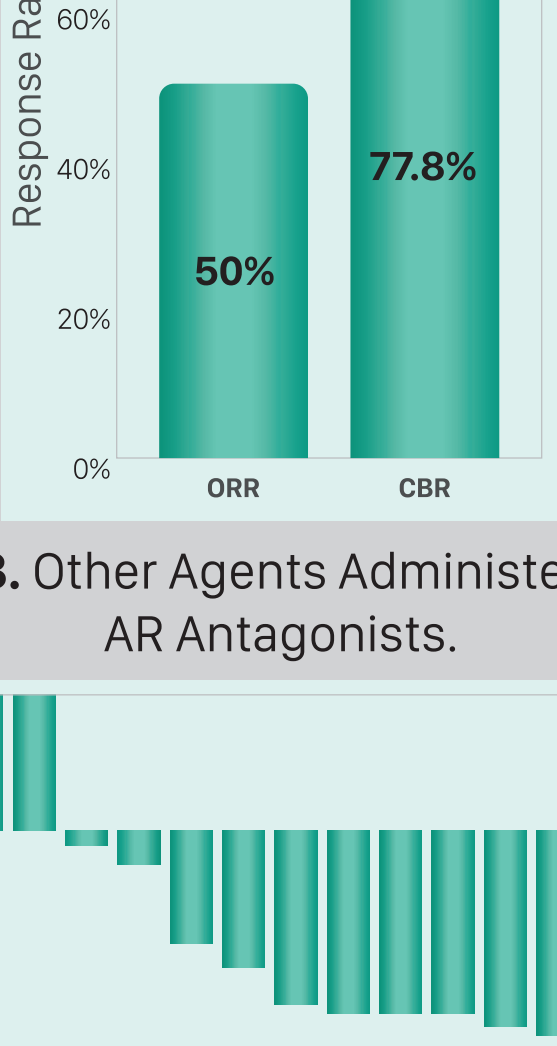


Figure 8. Other Agents Administered with AR Antagonists.

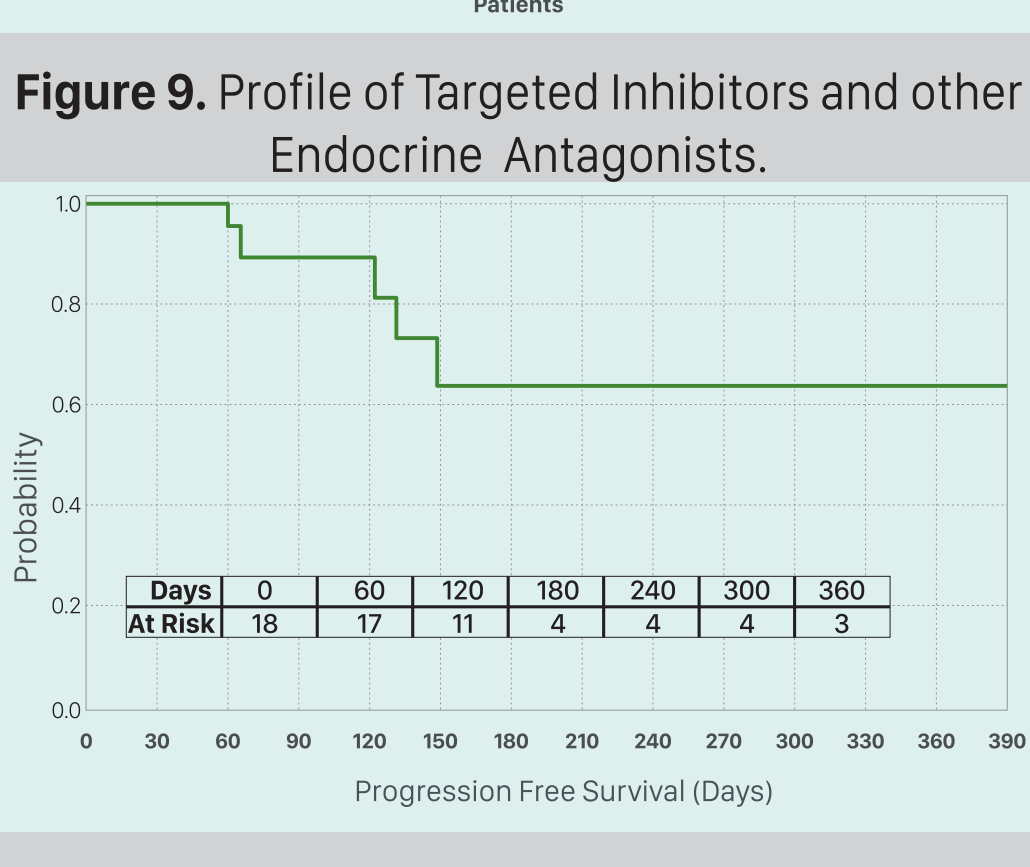


Figure 9. Profile of Targeted Inhibitors and other Endocrine Antagonists.

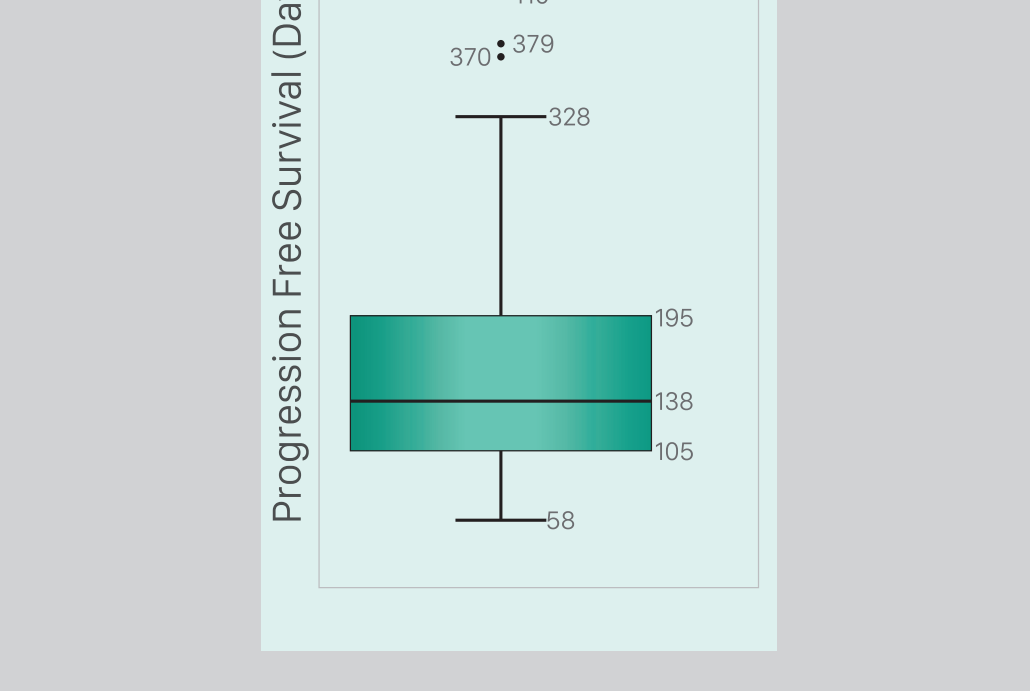
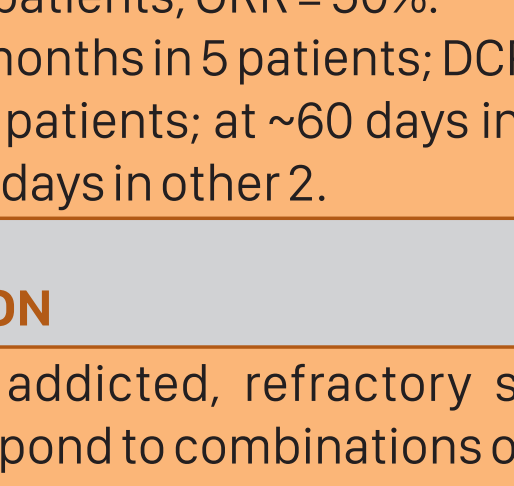


Figure 10. Progression Free Survival



FINDINGS

- PR in 9 patients; ORR = 50%.
- SD \geq 3 months in 5 patients; DCR = 77.8%,
- PD in 4 patients; at ~60 days in 2 patients, at >120 days in other 2.

CONCLUSION

Androgen addicted, refractory solid organ tumors respond to combinations of cytotoxic, targeted and endocrine agents along with AR antagonists guided by ETA.