

# Encyclopedic Tumor Analysis Guided Treatments with Conventional Drugs Outperform Available Alternatives in Refractory Cancers

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

## BACKGROUND

- Refractory cancers pose formidable management challenges.
- Deep interrogation of the tumor can reveal indications for treatments with anticancer agents in a label- and organ-agnostic manner.

## RATIONALE

- Encyclopedia Tumor Analysis (ETA) is an integrational multi-analyte evaluation of tumor features using DNA, RNA, proteins and viable tumor derived cells (TDCs).
- ETA identifies latent vulnerabilities of the tumor and can guide patient-specific combination regimens for tandem-targeting of tumor vulnerabilities.

## APPROACH

- 110 patients with advanced, refractory solid organ cancers which had progressed following  $\geq 2$  prior systemic lines,
- Patients received personalized treatments based on ETA,
- Treatment response was determined radiologically (Objective Response Rate, ORR and Disease Control Rate, DCR).

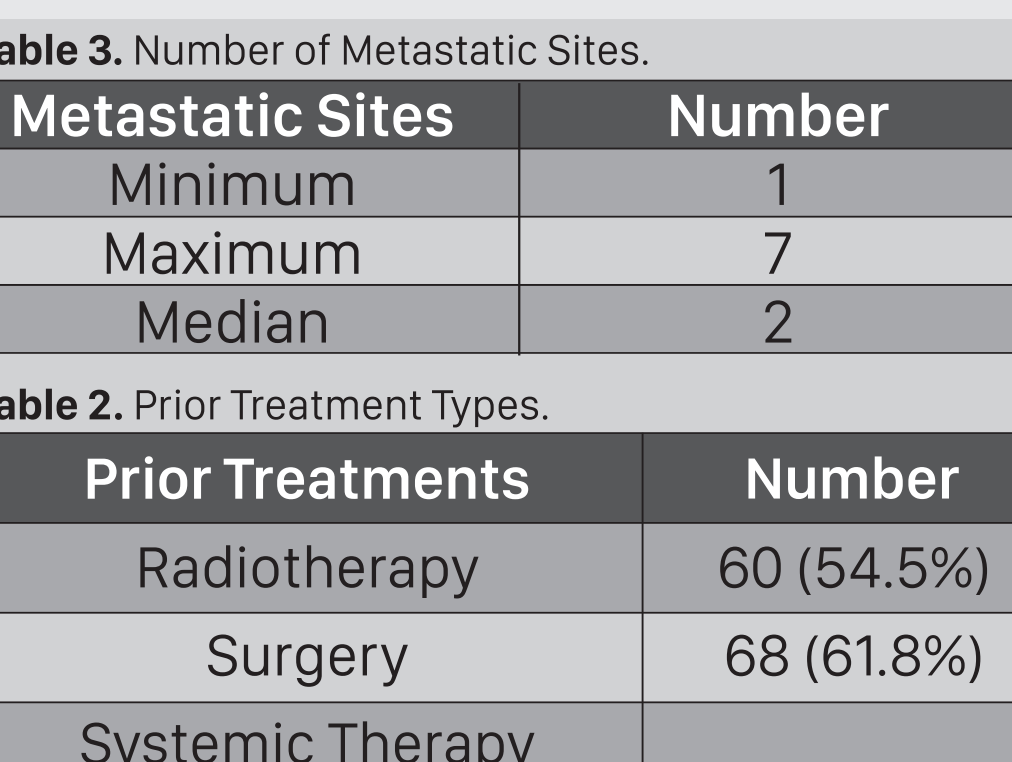
## DEMOGRAPHICS

**Table 1.** Study Cohort

Cancer Type	Number
Head and Neck	30
Breast	21
Colorectal	14
Ovarian	8
Pancreatic	7
Gastric	6
Hepatobiliary	6
Cervix	5
Lung	5
Kidney	4
Esophageal	2
Melanoma	2

54 males + 56 females. Median age: 50 years (Range 24-72)

**Figure 1.** Extent of Disease Metastases.



**Table 3.** Number of Metastatic Sites.

Metastatic Sites	Number
Minimum	1
Maximum	7
Median	2

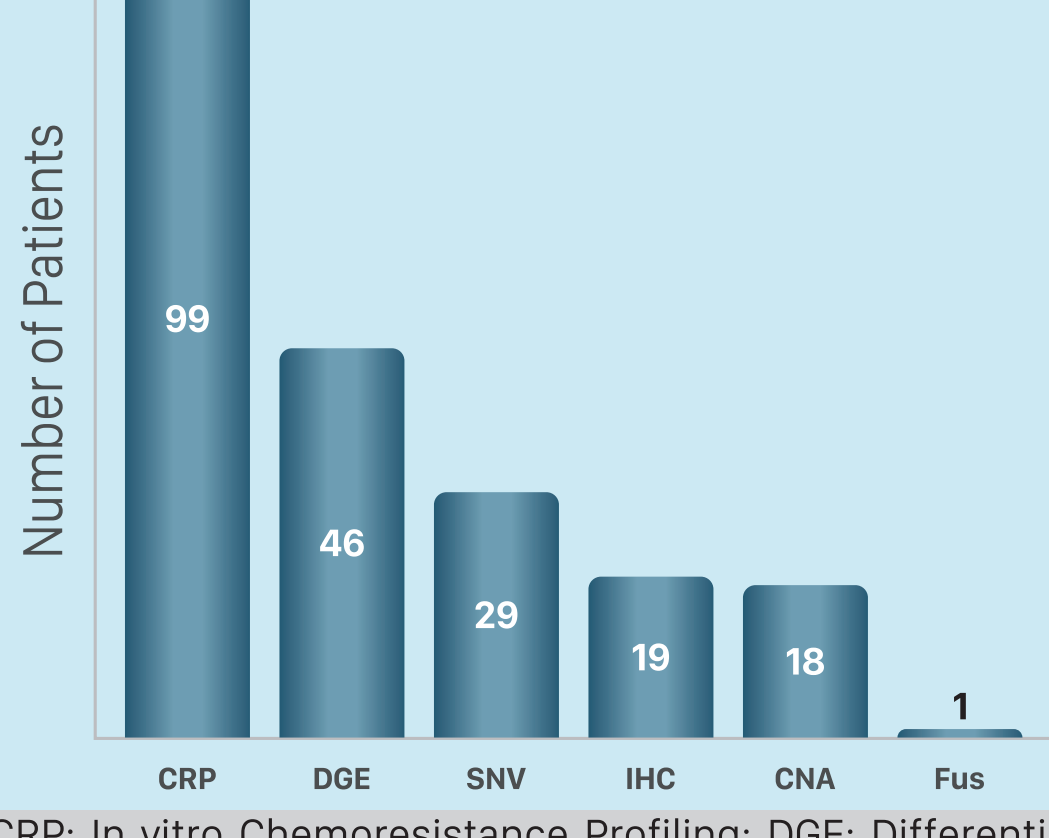
**Table 2.** Prior Treatment Types.

Prior Treatments	Number
Radiotherapy	60 (54.5%)
Surgery	68 (61.8%)
Systemic Therapy	
Cytotoxic	106 (96.4%)
Targeted	30 (27.3%)
Endocrine	8 (7.3%)

**Table 4.** Prior Treatment Lines.

Prior Lines	Systemic	All
Minimum	1	1
Maximum	14	17
Median	2	4

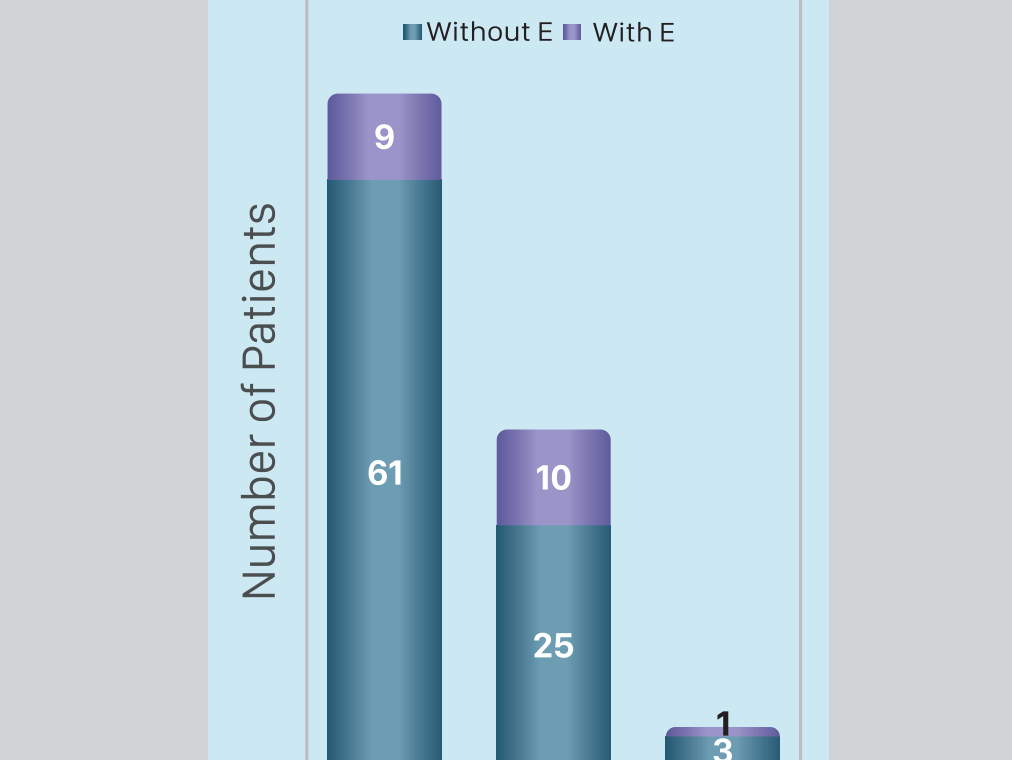
## ENCYCLOPEDIA TUMOR ANALYSIS



**Figure 2.** Overview of Multi-Analyte Investigations in ETA

## ETA INDICATIONS AND GUIDED REGIMENS

**Fig. 3.** Indications for Therapy Selection.



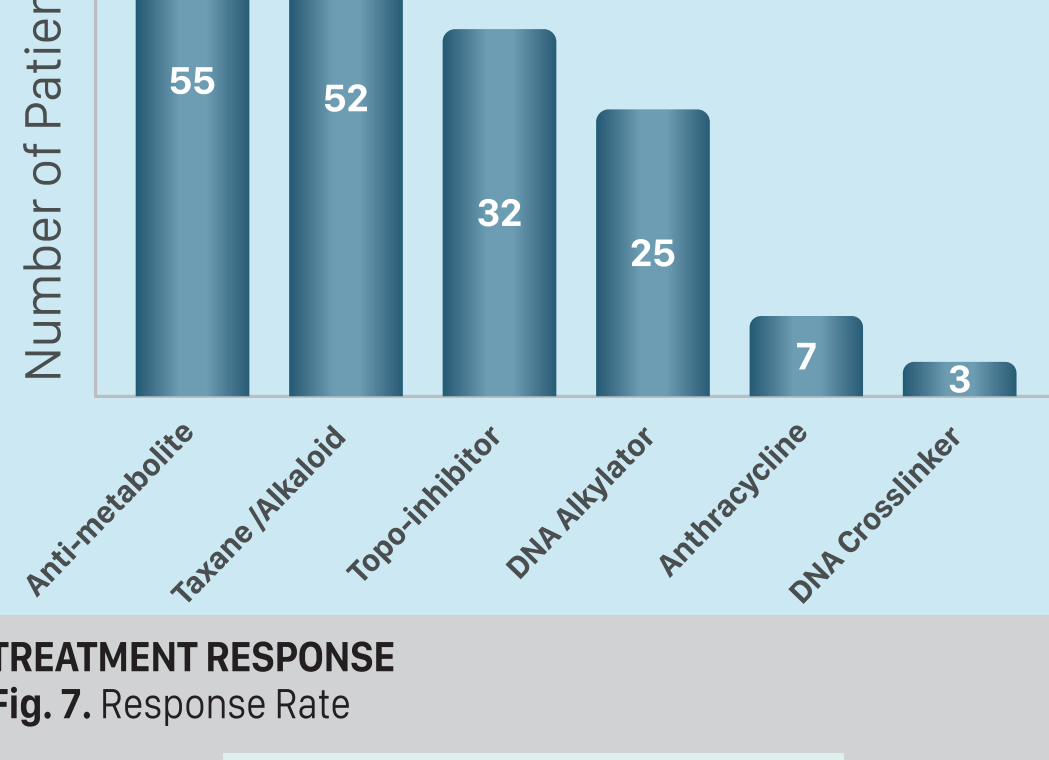
CRP: In vitro Chemoresistance Profiling; DGE: Differential Gene Expression; SNV: Single Nucleotide Variation, IHC: Immuno-histochemistry; CNA: Copy Number Alteration; Fus: Gene Fusion

**Fig. 4.** Types of ETA Guided Treatment Regimens.

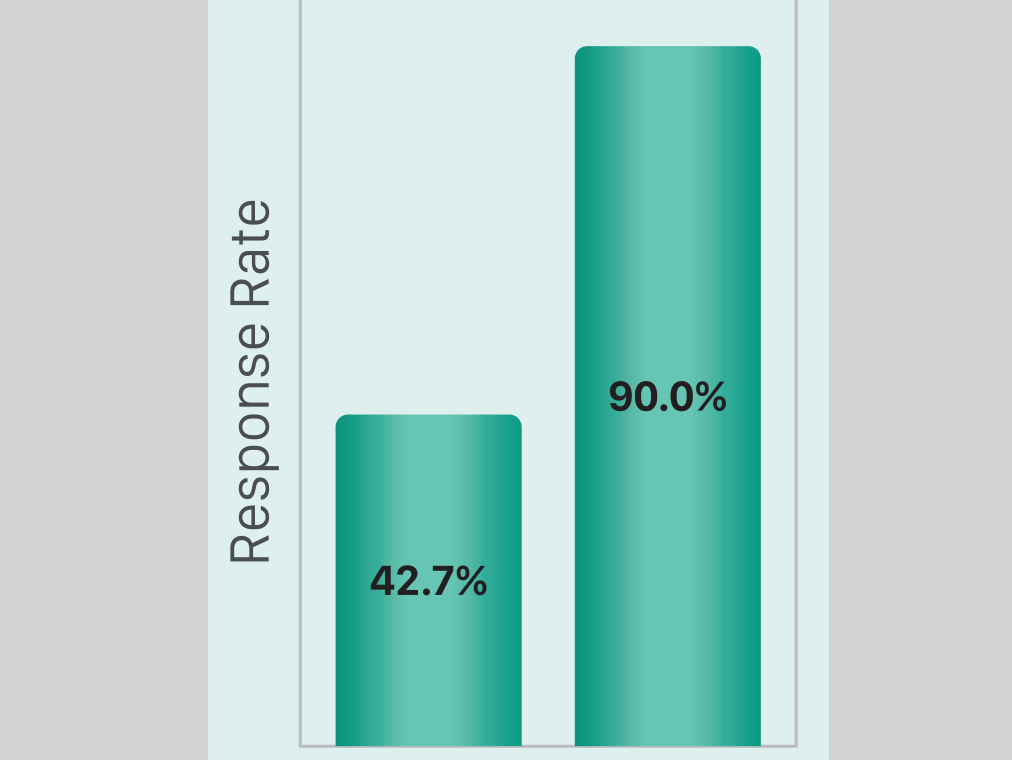


C: Cytotoxic only; T, Targeted only; C+T: Cytotoxic+ Targeted; E: Endocrine.

**Fig. 5.** Targeted and Endocrine Agents.

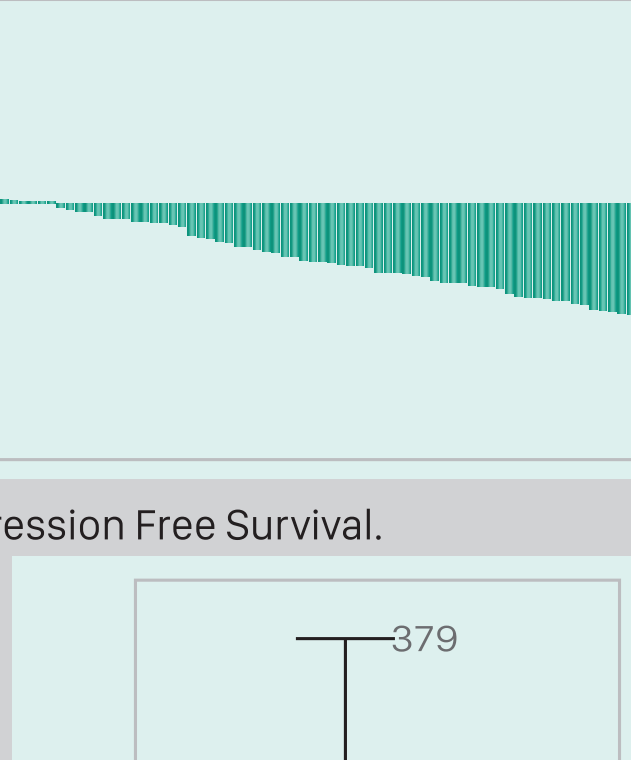


**Fig. 6.** Cytotoxic Agents.

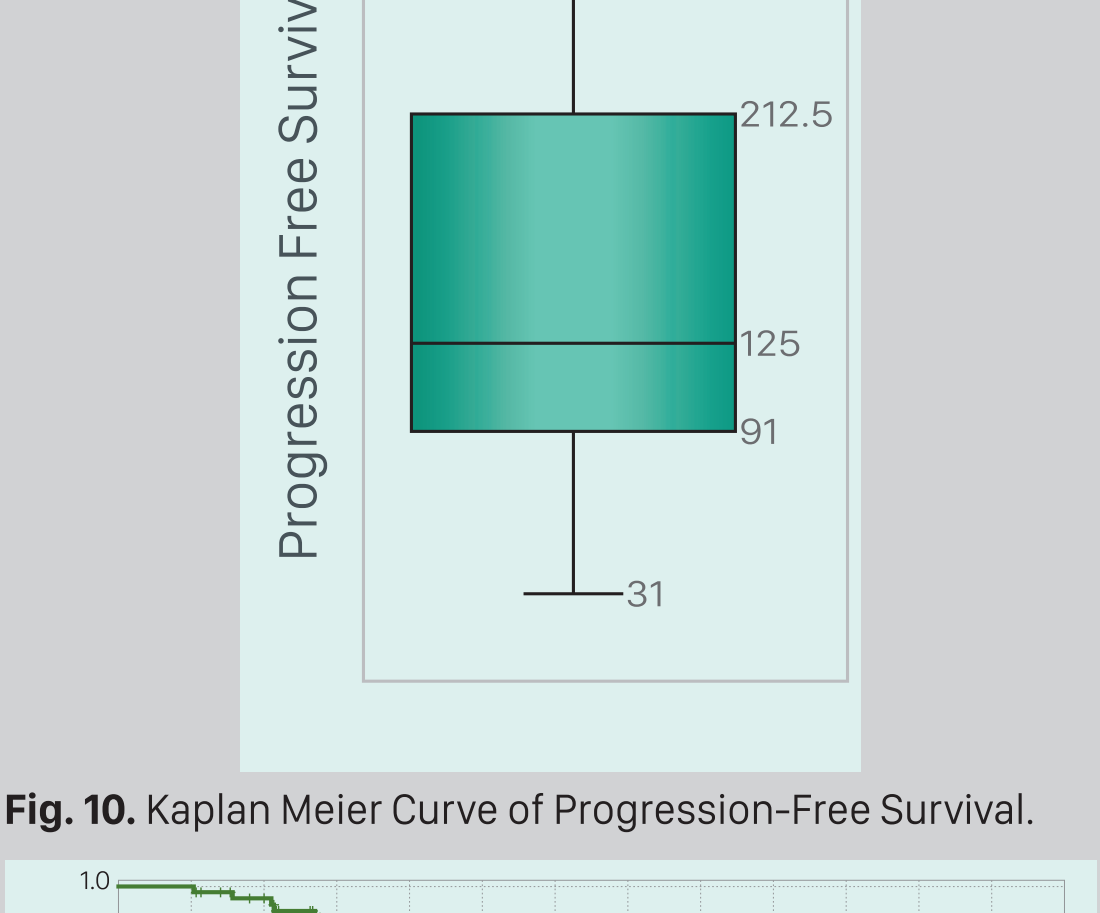


## TREATMENT RESPONSE

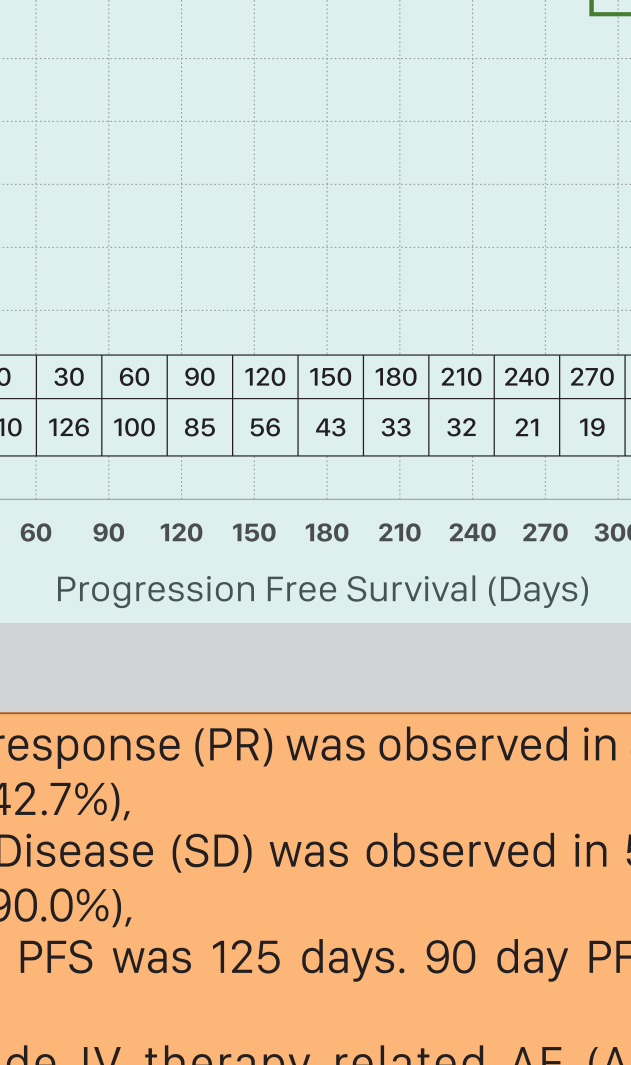
**Fig. 7.** Response Rate



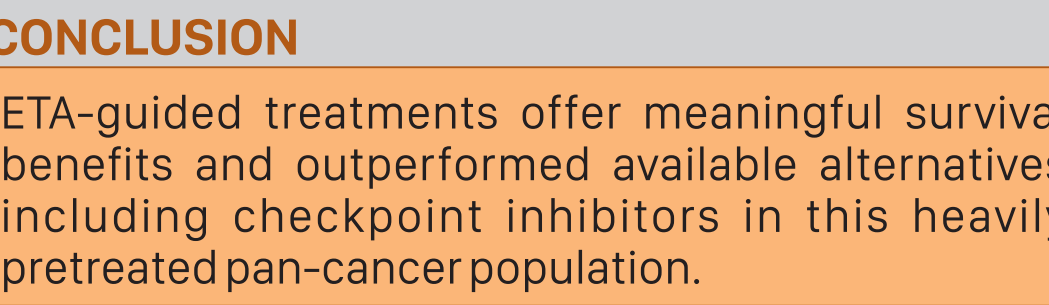
**Fig. 8.** Waterfall Chart of Best Response to ETA Guided Regimens.



**Fig. 9.** Progression Free Survival.



**Fig. 10.** Kaplan Meier Curve of Progression-Free Survival.



## FINDINGS

- Partial response (PR) was observed in 47 patients (ORR= 42.7%),

- Stable Disease (SD) was observed in 52 patients (DCR= 90.0%),

- Median PFS was 125 days. 90 day PFS rate was 94.0%,

- No Grade IV therapy related AE (AEs) or any treatment related deaths.

## CONCLUSION

ETA-guided treatments offer meaningful survival benefits and outperformed available alternatives including checkpoint inhibitors in this heavily pretreated pan-cancer population.