



Durable Response to Tarlatamab in Relapsed/Refractory Small Cell Lung Cancer: Insights From Excellent Responders

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INTRODUCTION

- Tarlatamab, a first-in-class DLL3-directed bispecific T-cell engager
- It has objective responses in ~40% of patients with relapsed/refractory small cell lung cancer (SCLC).
- Despite these responses, median PFS was only ~4.2 months the DeLLphi-304 trial.
- Thus, durable responses beyond 12 months are uncommon, and the clinical features of long-term responders remain poorly characterized
- We describe a single-center case series of patients with sustained benefit from tarlatamab to identify clinical correlates of durable response.

METHODS

- Single-center retrospective review of patients with relapsed/refractory SCLC treated with tarlatamab.
- Clinical characteristics, treatment history, response, adverse events, and outcomes were extracted from the electronic medical record.
- Patients with ongoing response or stable disease for >12 months (durable response) were included.

Results

Characteristic	Patient 1	Patient 2	Patient 3
Age at Diagnosis	55	63	64
Stage at Diagnosis	Extensive	Extensive	Limited
Prior therapies	○ Platinum/ Etoposide/ Atezolizumab	○ Platinum/ Etoposide/ Atezolizumab	○ Platinum/ Etoposide/ RT ○ Platinum/ Etoposide/ Atezolizumab
Time to tarlatamab therapy (months)	10	35	17
CNS disease & treatment	Yes; WBRT	No	No
No. of tarlatamab cycles	2	1	49
Reason for discontinuation	FTT dysgeusia	Pneumonitis	— (ongoing)
CRS	Yes	Yes	Yes
CRS grade	G1 (C1D1)	G2 (C1D8)	G2 (C1D1) & G1 (C1D8)
Neurotoxicity	No	No	No
Vital status	Alive	Deceased	Alive
Current disease status	SD	CR	PR
Post-tarlatamab treatment	Surveillance	—	On treatment

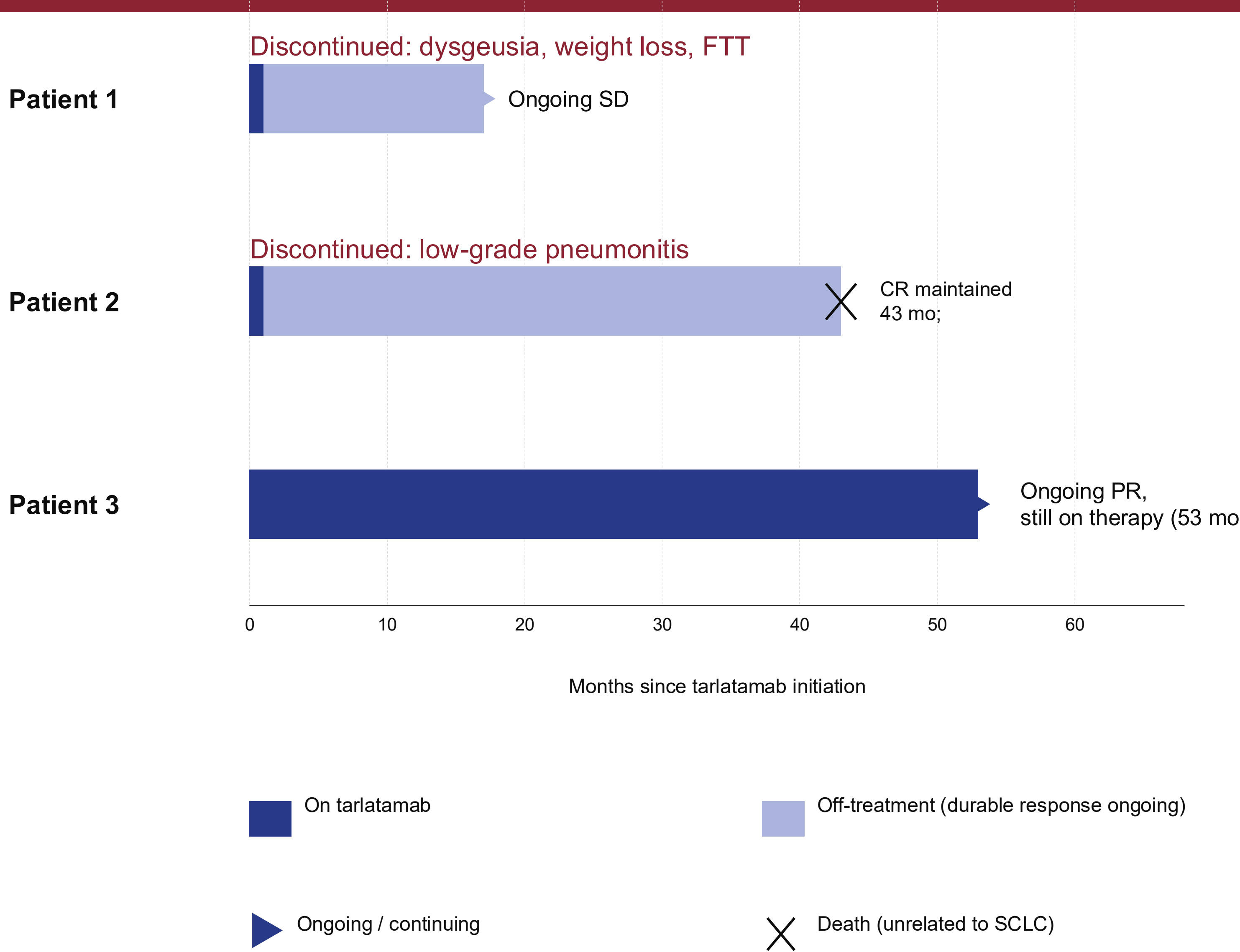


Figure 1. Swimmer plot of individual patient treatment timelines and outcomes on tarlatamab.

DISCUSSION AND CONCLUSIONS

Actionable Take-Home Message

- Tarlatamab can produce exceptional, durable responses in relapsed/refractory SCLC — even after brief exposure limited by toxicity.
- Two of three excellent responders discontinued treatment due to early toxicity but maintained stable disease off therapy, suggesting early treatment-limiting toxicity indicates robust T-cell engagement and predicts durable benefit.

Future Direction for Research

- Biomarker studies are needed to identify predictors of long-term benefit from tarlatamab, including correlates of early immune-related toxicity.

Table 1. Patient Characteristics, Treatment, and Outcomes