

44 cases retrospective analysis of everolimus and PRRT (peptide receptor radionuclide therapy)

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Background

- Lung and thymic carcinoids are rare diseases, accounting for less than 1% of thoracic malignancies.
- Surgical resection is the standard treatment for localized disease, and systemic therapy is the treatment for unresectable or recurrent cases.
- Everolimus and PRRT are the main systemic therapies.
- Everolimus is the guideline-recommended treatment option in thoracic carcinoids, while the evidence for PRRT remains limited¹⁻³
- Real-world data evaluating treatment outcomes and optimal sequencing strategies in thoracic carcinoids remains limited⁴.

Method

Study Design :

Single-center, retrospective observational study at the National Cancer Center Hospital, Japan

Patients with lung or thymic carcinoids treated between 2014 and 2025

Re-challenge episodes with the same treatment were excluded

➤ **Outcomes** : Median Progression-Free Survival (mPFS)

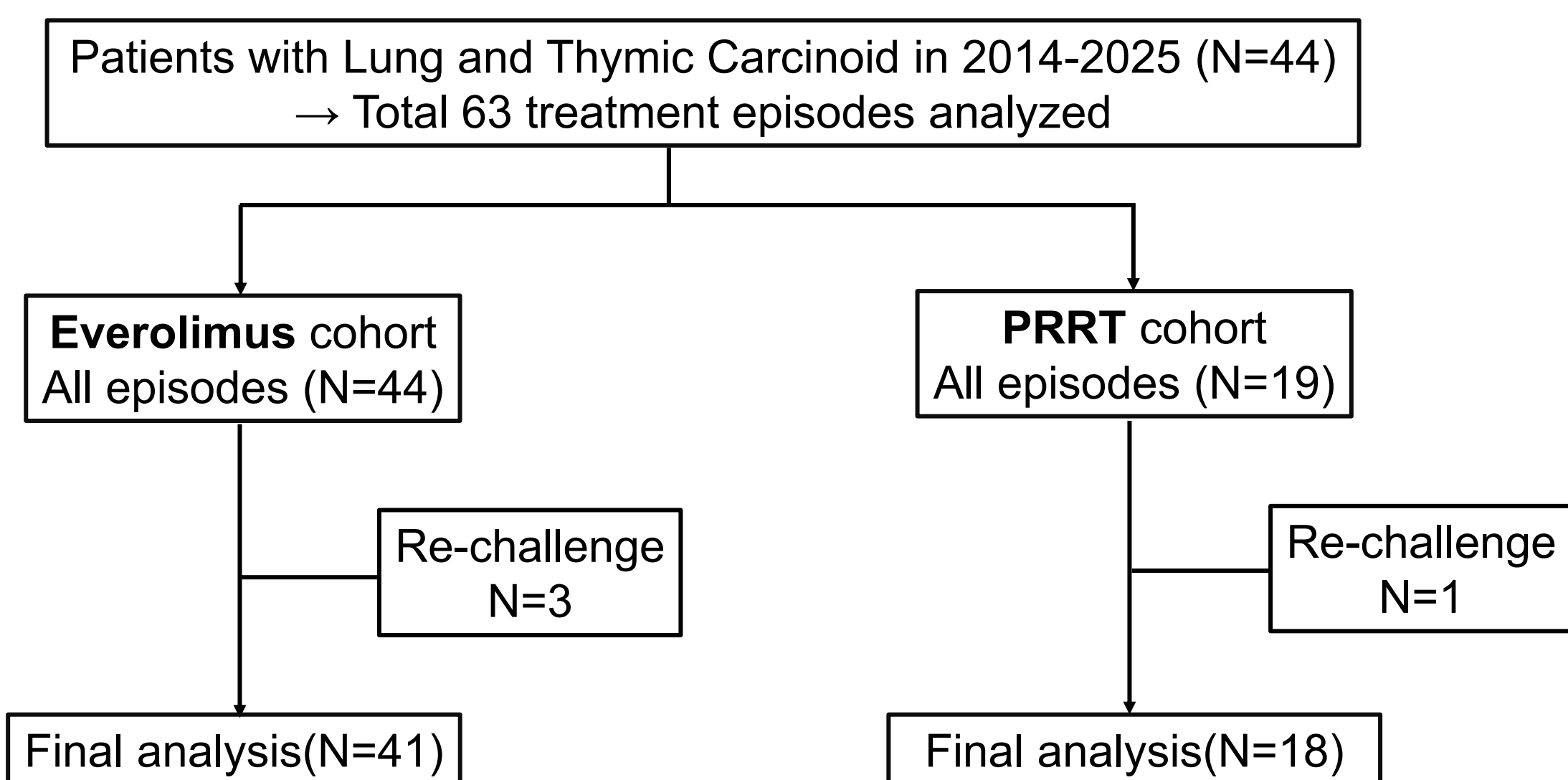
Objective Response Rate (ORR), Disease Control Rate (DCR)

Safety

Response Evaluation :

Assessed by investigators according to RECIST ver 1.1

Figure 1. Flow Diagram of Patients Selection



* 19 patients received both treatments sequentially and were included in both cohorts.

Table 1. Patient Characteristics (Total, Everolimus, PRRT)

Variables	Total (N=44)		Everolimus (N=41)		PRRT (N=18)	
	N	%	N	%	N	%
Age, median (range)	58 (34-77)		57 (32-77)		54 (32-68)	
Sex, Male	27	61	24	59	14	78
ECOG PS						
0	29	43	17	41	12	67
1	25	57	24	59	6	33
recurrence	33	75	30	74	15	83
Primary site						
Lung	23	52	21	51	9	50
Thymus	21	48	20	49	9	50
Histology						
Typical	9	21	7	17	7	39
Atypical	35	79	34	83	11	61
Liver metastases	20	46	18	44	10	56
Uptake on SRS**	22	50	19	68	18	100
Carcinoid syndrome	6	14	5	12	6	33

* SRS : Somatostatin receptor scintigraphy

Conclusion

- Everolimus demonstrated durable disease control in this retrospective study, with a median PFS of 19.2 months. The DCR 82.9% was comparable to that reported in previous studies¹.
- PRRT tended to show more favorable outcomes with lung carcinoids than thymic carcinoids in our cohort, although the evidence regarding PRRT in thymic carcinoids remains limited²).
- The safety profiles of everolimus and PRRT in our cohort were generally consistent with those reported in previous studies⁵.

Results

Figure 2. Sanky diagram of treatment sequence

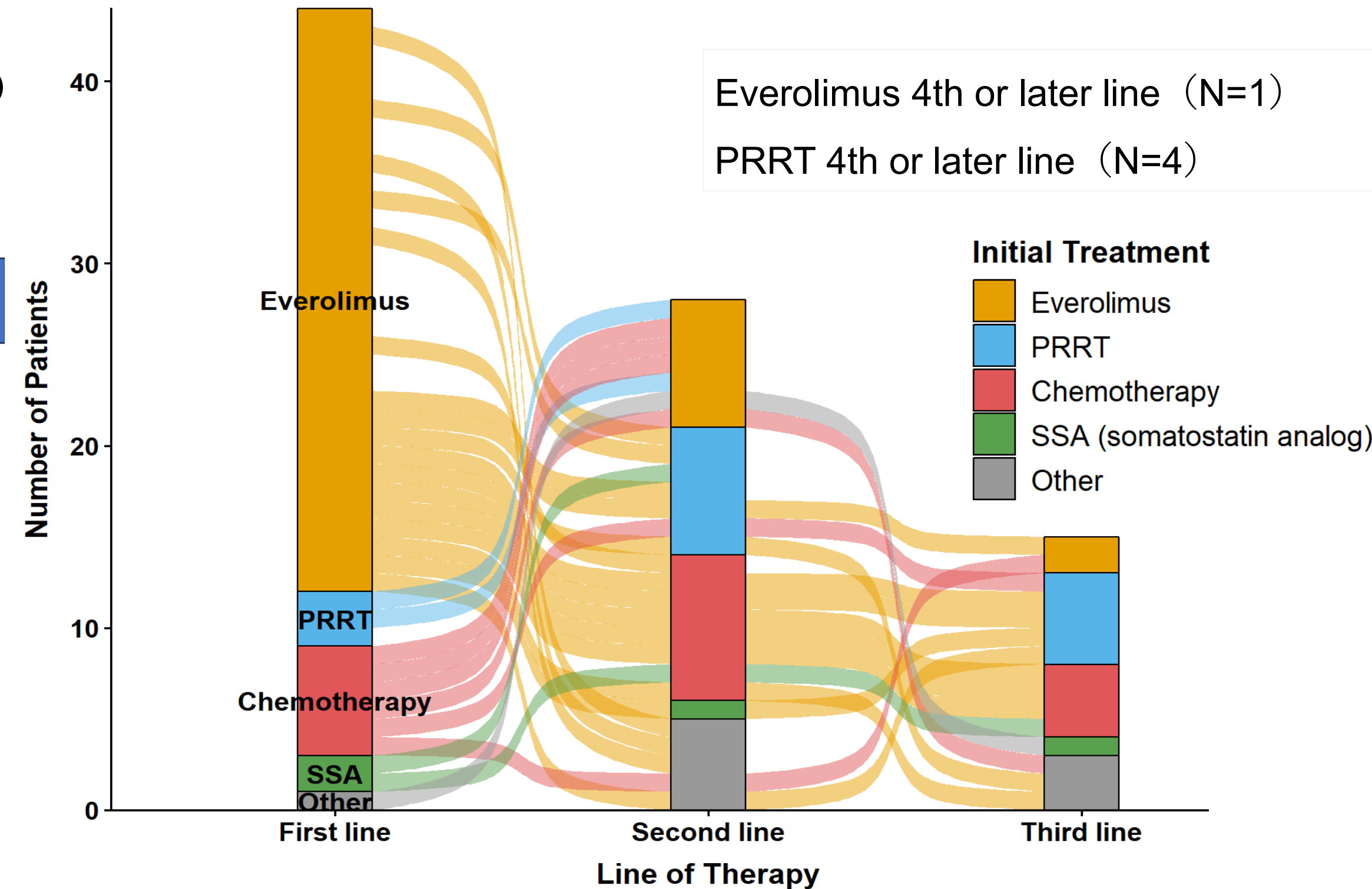


Figure 3. mPFS

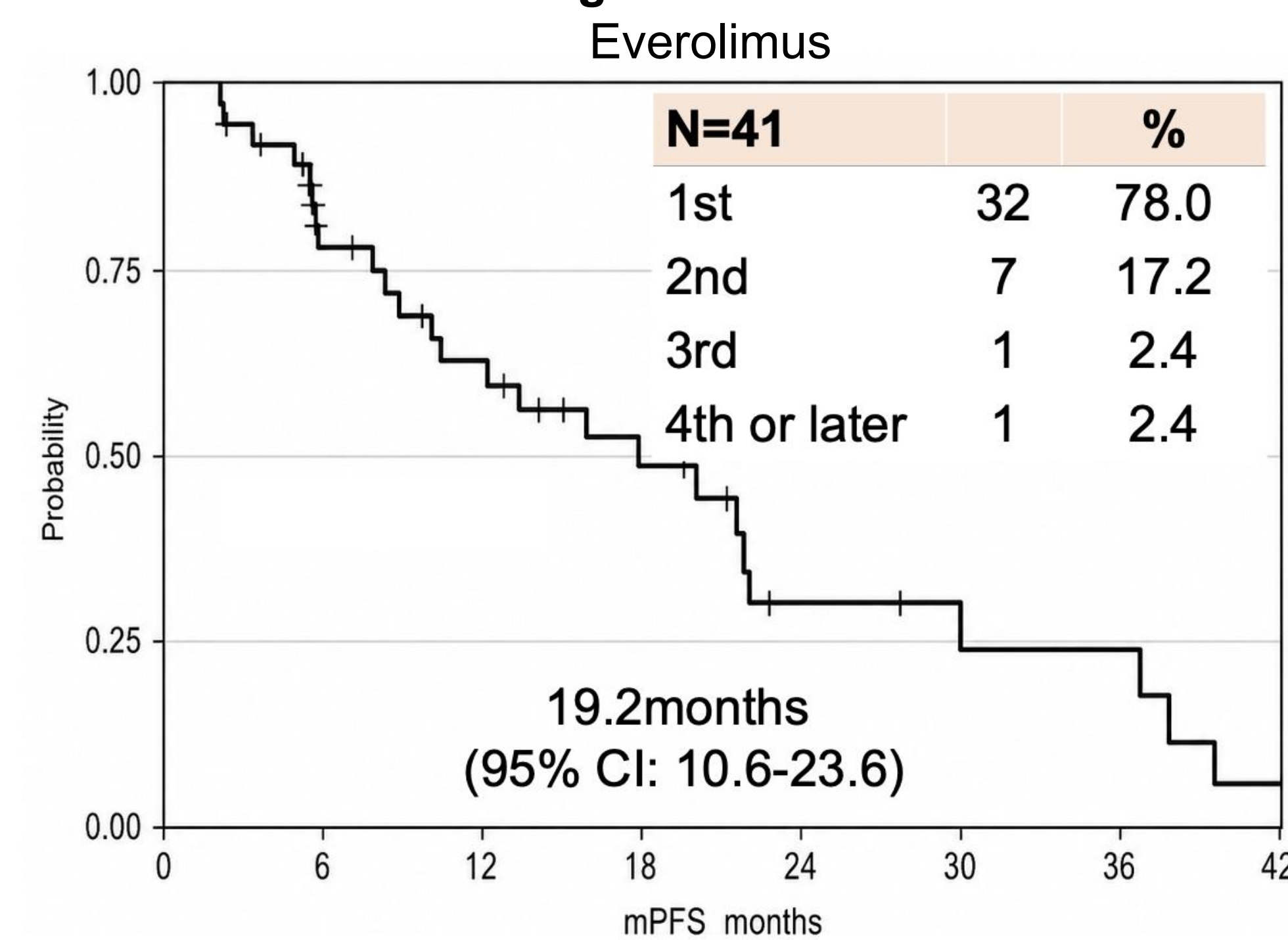


Table 2. The adverse event profiles

	Everolimus (N=41)				PRRT (N=18)			
	Any Grade	Grade 3/4	N	%	Any Grade	Grade 3/4	N	%
All AEs*			40	97.6			16	88.9
Mucositis			21	51.2			12	66.7
Rash			10	24.4			5	27.8
Liver dysfunction			9	22.0			5	27.8
D-ILD*			8	19.5			3	16.7
Anorexia			8	19.5			3	16.7
Diarrhea			7	17.1			3	16.7
Fatigue			7	17.1			3	16.7
Dysgeusia			4	9.8			2	11.1
Nausea			4	9.8			2	11.1
Infection			4	9.8			1	5.6

* D-ILD : Drug-induced pneumonitis

Reference

- 1) Yao JC, et al. Lancet. 2016;387:968–977.
- 2) Strosberg J, et al. N Engl J Med. 2017;376:125–135.
- 3) Brabander T, et al. Clin Cancer Res. 2017.
- 4) Dasari A, et al. JAMA Oncol. 2017.
- 5) Baum RP, et al. Oncotarget. 2018.

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No conflicts of interest to declare.

Figure 6. Swimmers plot

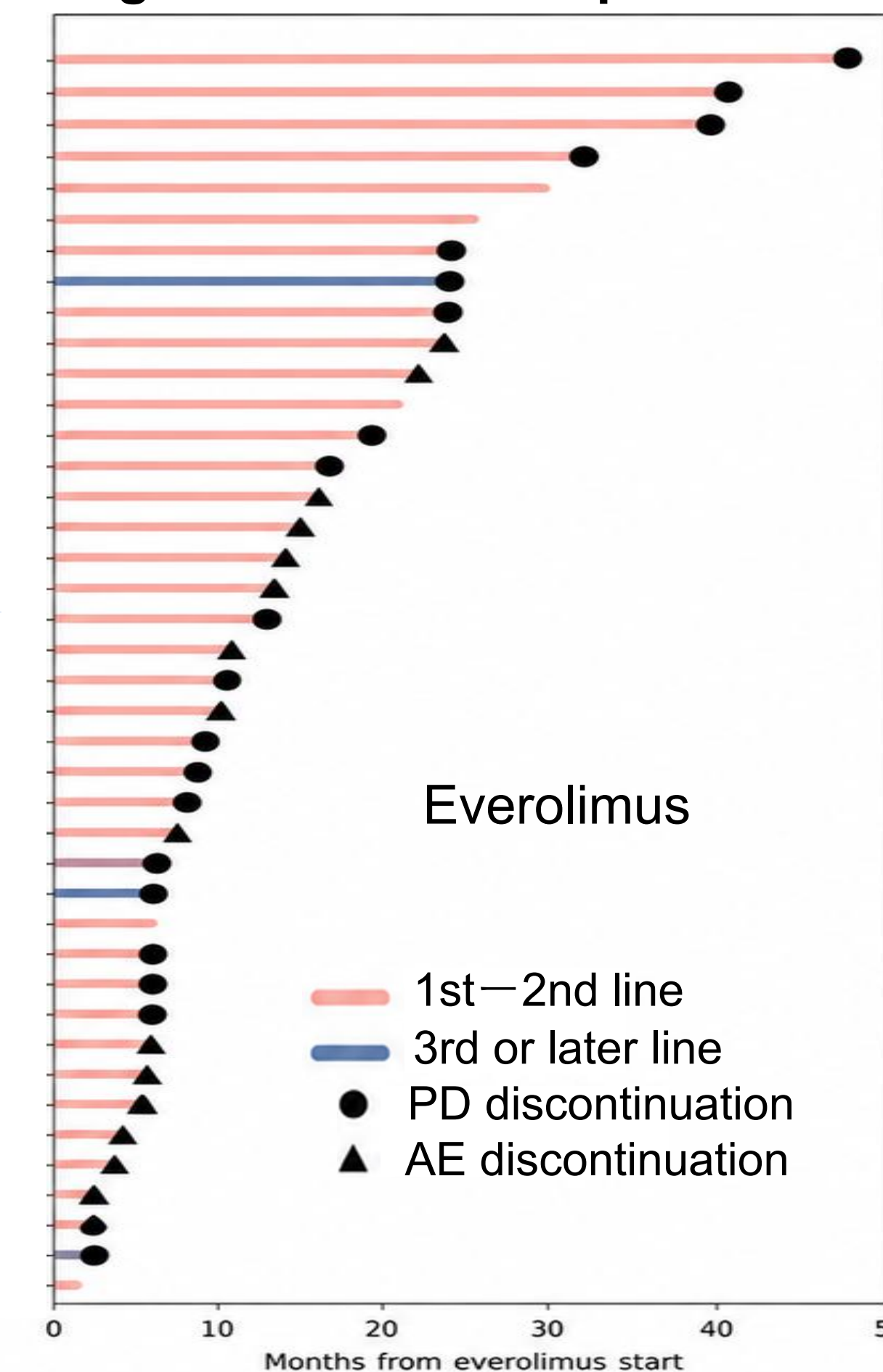


Figure 4. mPFS by primary site

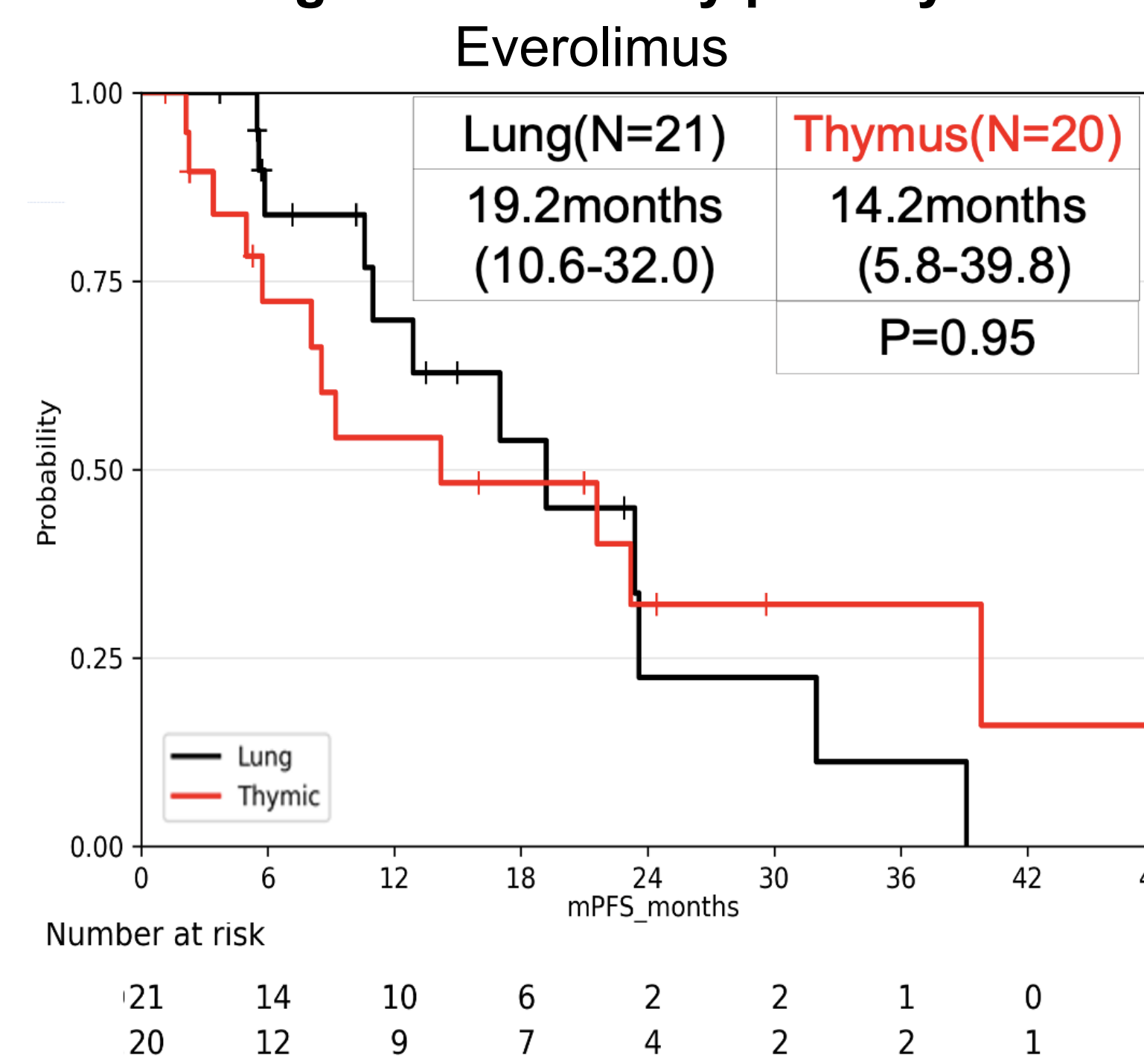
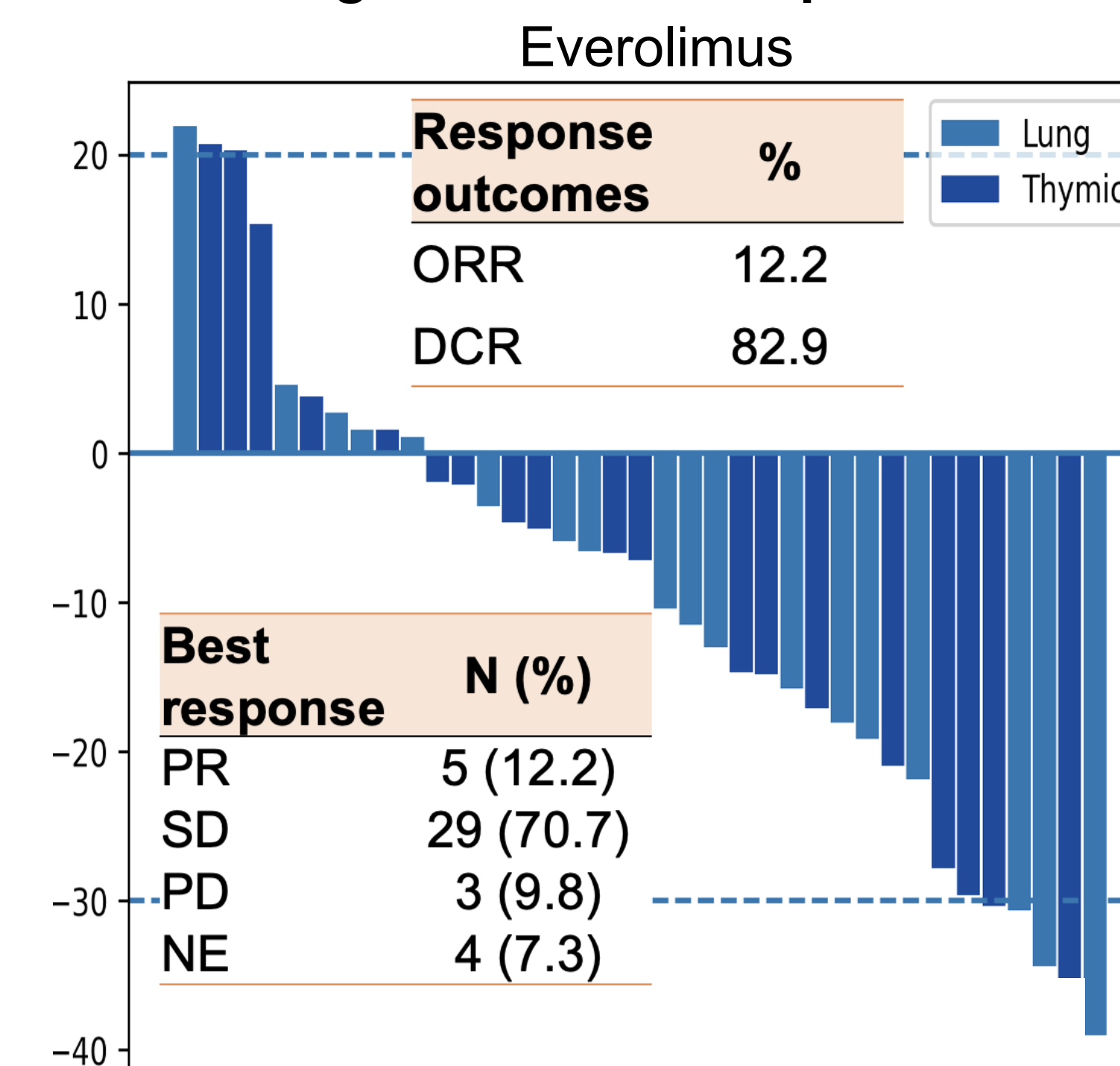
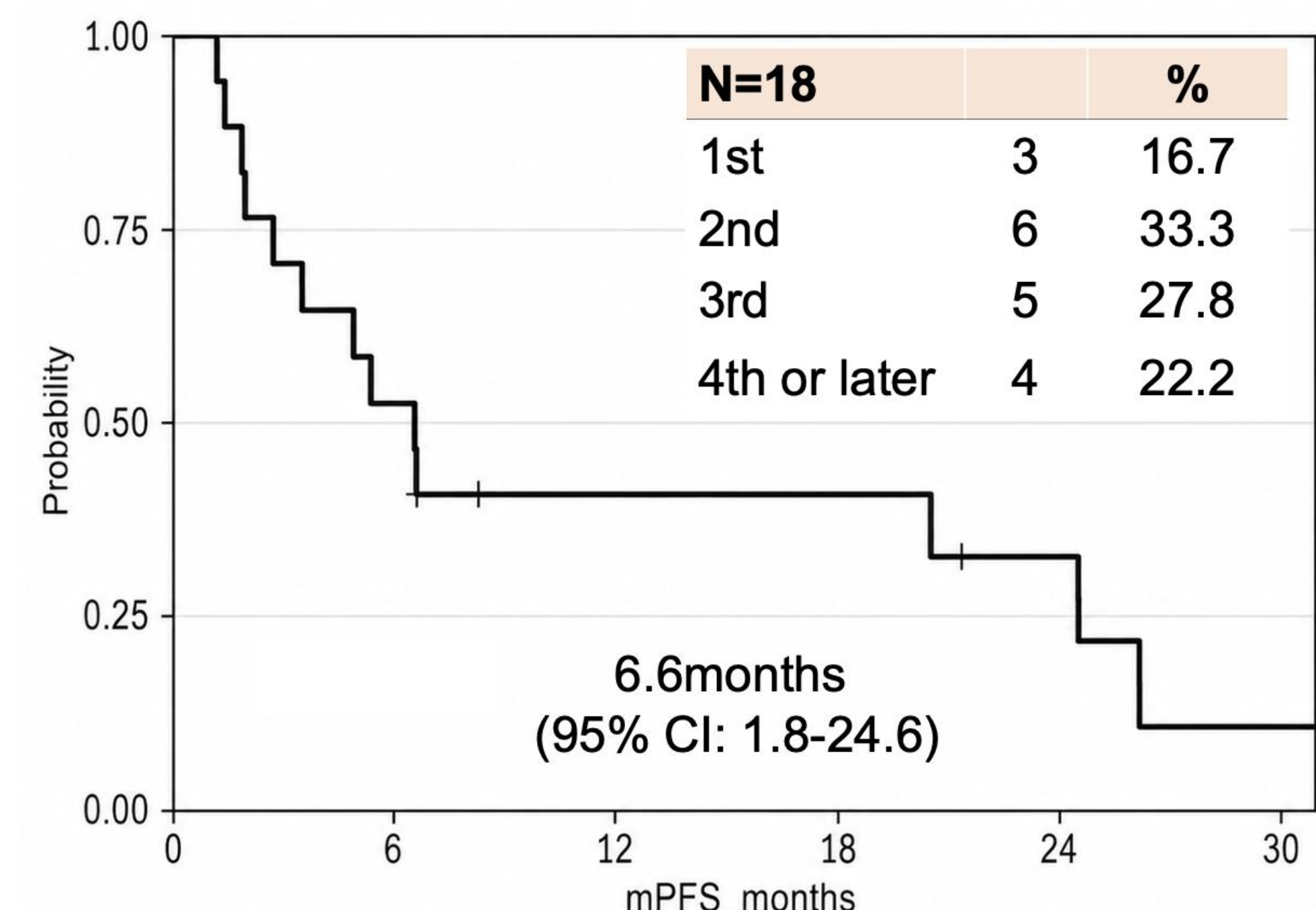


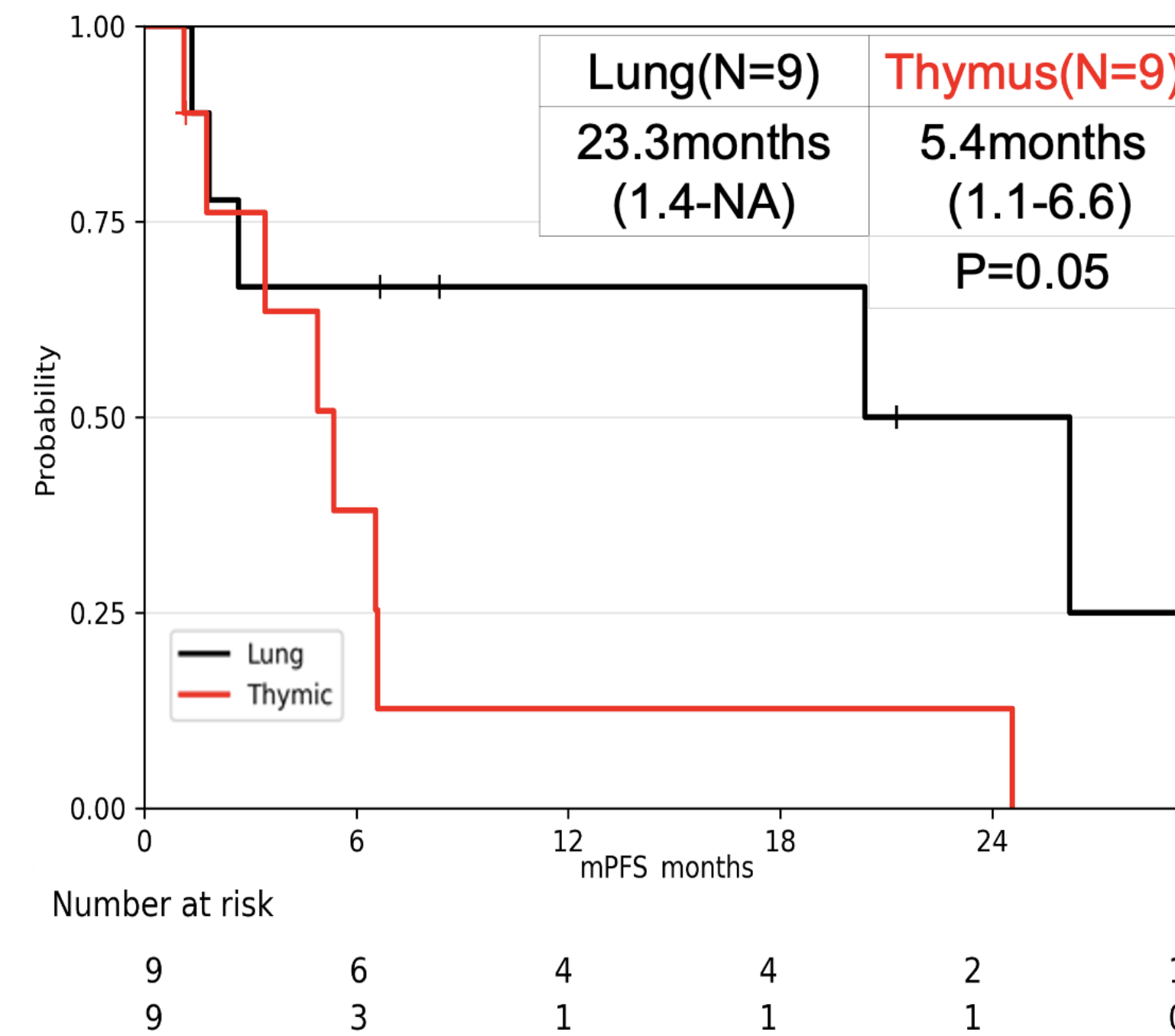
Figure 5. Tumor response



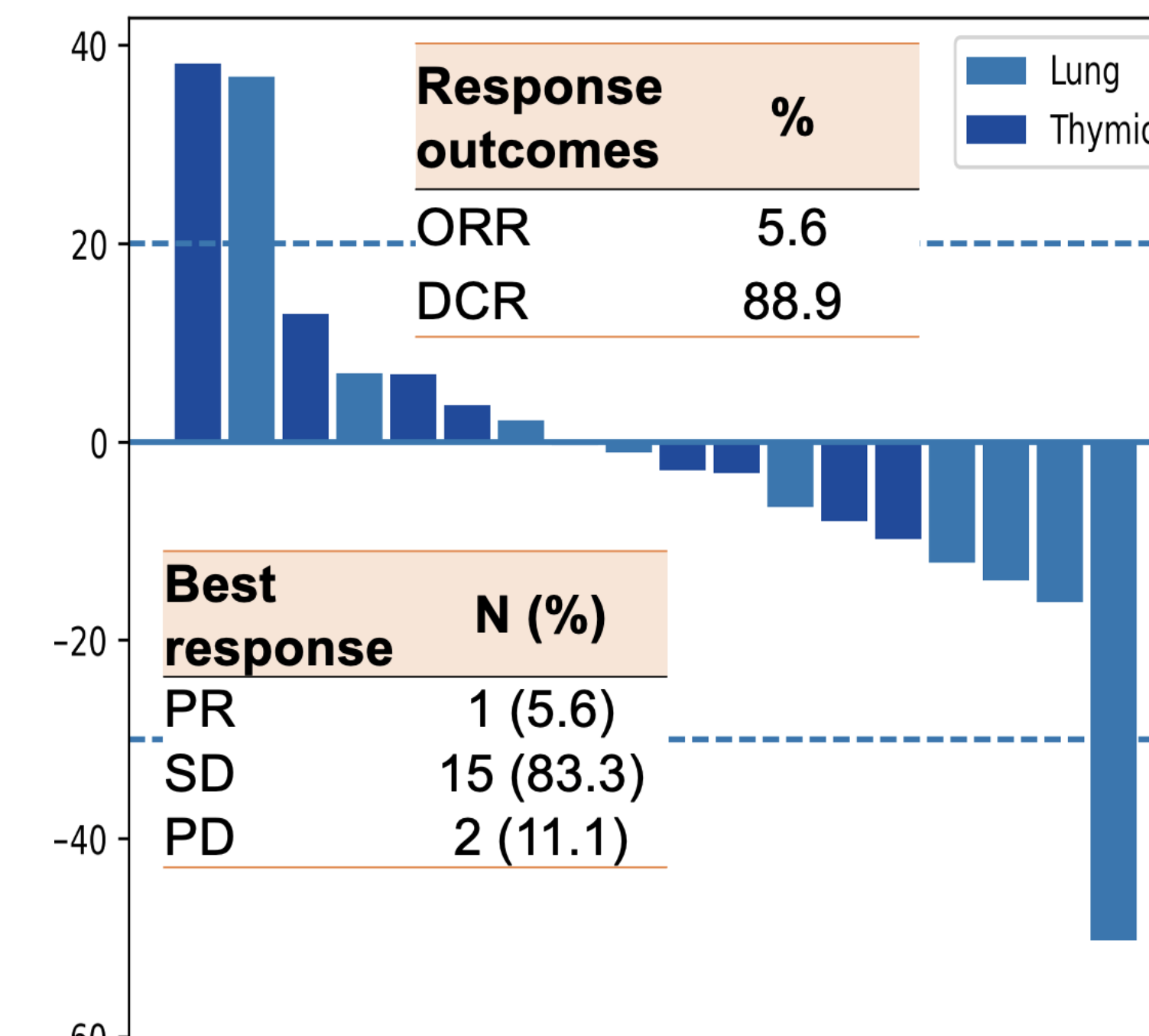
PRRT



PRRT



PRRT



PRRT

