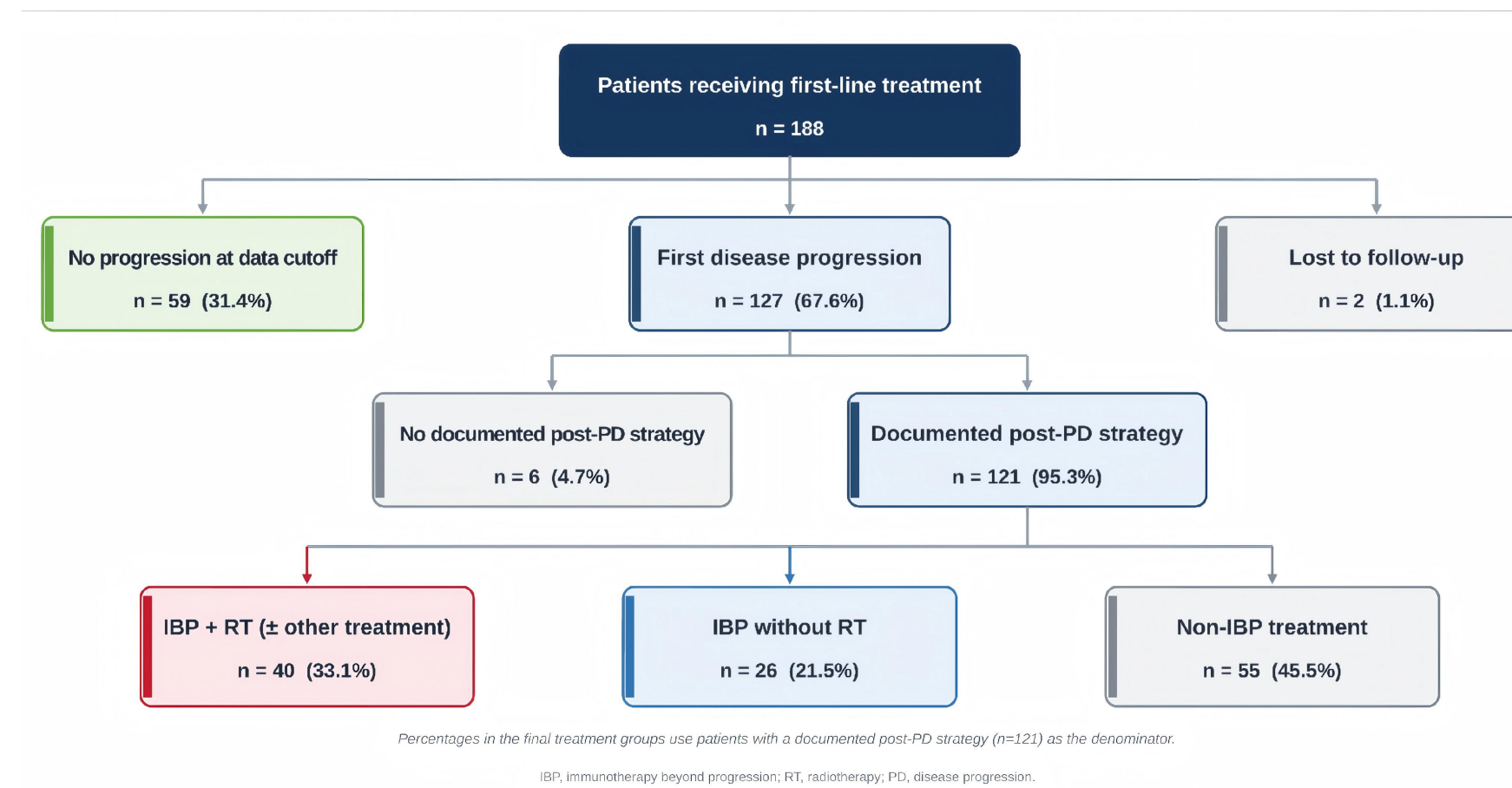


INTRODUCTION

- Disease progression during immune checkpoint inhibitor (ICI)-based therapy remains a major clinical challenge in advanced NSCLC.
- Immunotherapy beyond progression (IBP) is increasingly adopted in selected patients; however, the optimal post-progression strategy, particularly the role of radiotherapy (RT) combined with continued immunotherapy, remains unclear.
- This study aimed to characterize post-progression treatment trajectories and evaluate clinical outcomes associated with IBP with or without radiotherapy (RT).

STUDY DESIGN



Ambispective real-world cohort study Population

Patients with advanced NSCLC receiving first-line ICI-based therapy and with documented post-progression treatment data.

Post-progression treatment groups

- IBP + RT
- IBP without RT
- Non-IBP treatment

Analyses

- Treatment trajectories characterized using Sankey analyses
- PFS and OS assessed using Kaplan–Meier analyses and Cox proportional hazards models
- Prespecified subgroup analyses according to metastatic burden, metastatic sites, and progression patterns

RESULTS

Treatment Trajectories

Among 188 patients, treatment patterns became increasingly heterogeneous across later lines. After first progression, 54.5% of patients with a documented strategy received IBP.

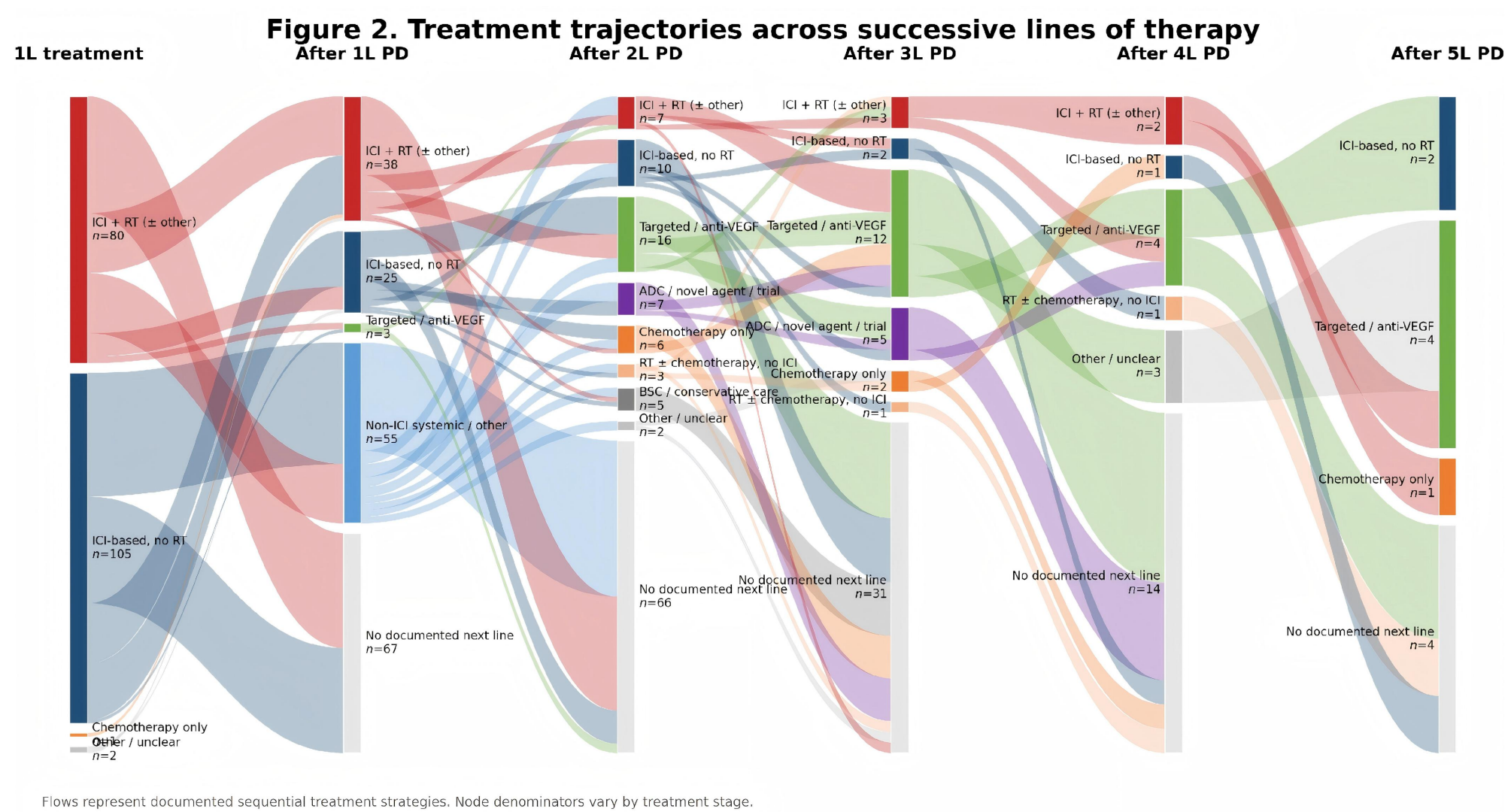


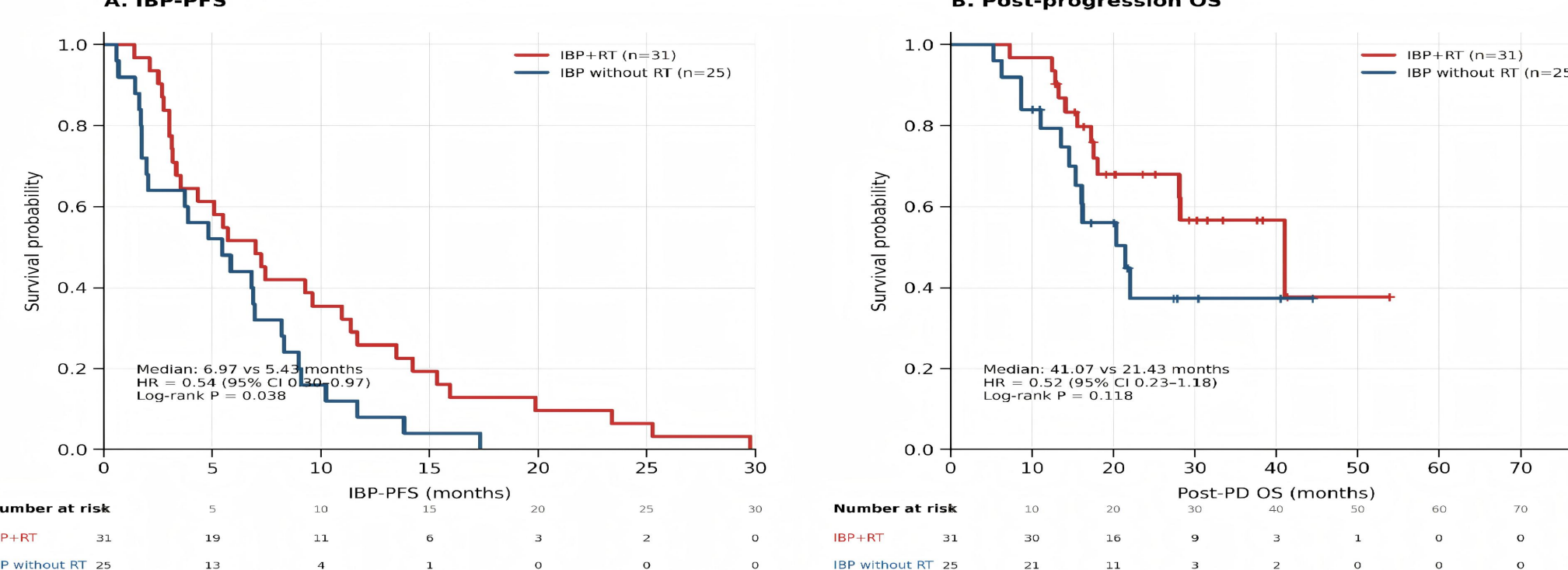
Table 3. Patterns of Immunotherapy Beyond Progression Following Disease Progression

Treatment stage	Patients with documented strategy, N	IBP + RT, n (%)	IBP without RT, n (%)	Total IBP, n (%)	Non-IBP, n (%)
Second-line treatment after first progression	121	40 (33.1)	26 (21.5)	66 (54.5)	55 (45.5)
Third-line treatment after second progression	56	7 (12.5)	10 (17.9)	17 (30.4)	39 (69.6)
Fourth-line treatment after third progression	25	3 (12.0)	2 (8.0)	5 (20.0)	20 (80.0)
Fifth-line treatment after fourth progression	11	2 (18.2)	1 (9.1)	3 (27.3)	8 (72.7)
Sixth-line treatment after fifth progression	7	0 (0.0)	2 (28.6)	2 (28.6)	5 (71.4)

Clinical Outcomes of IBP

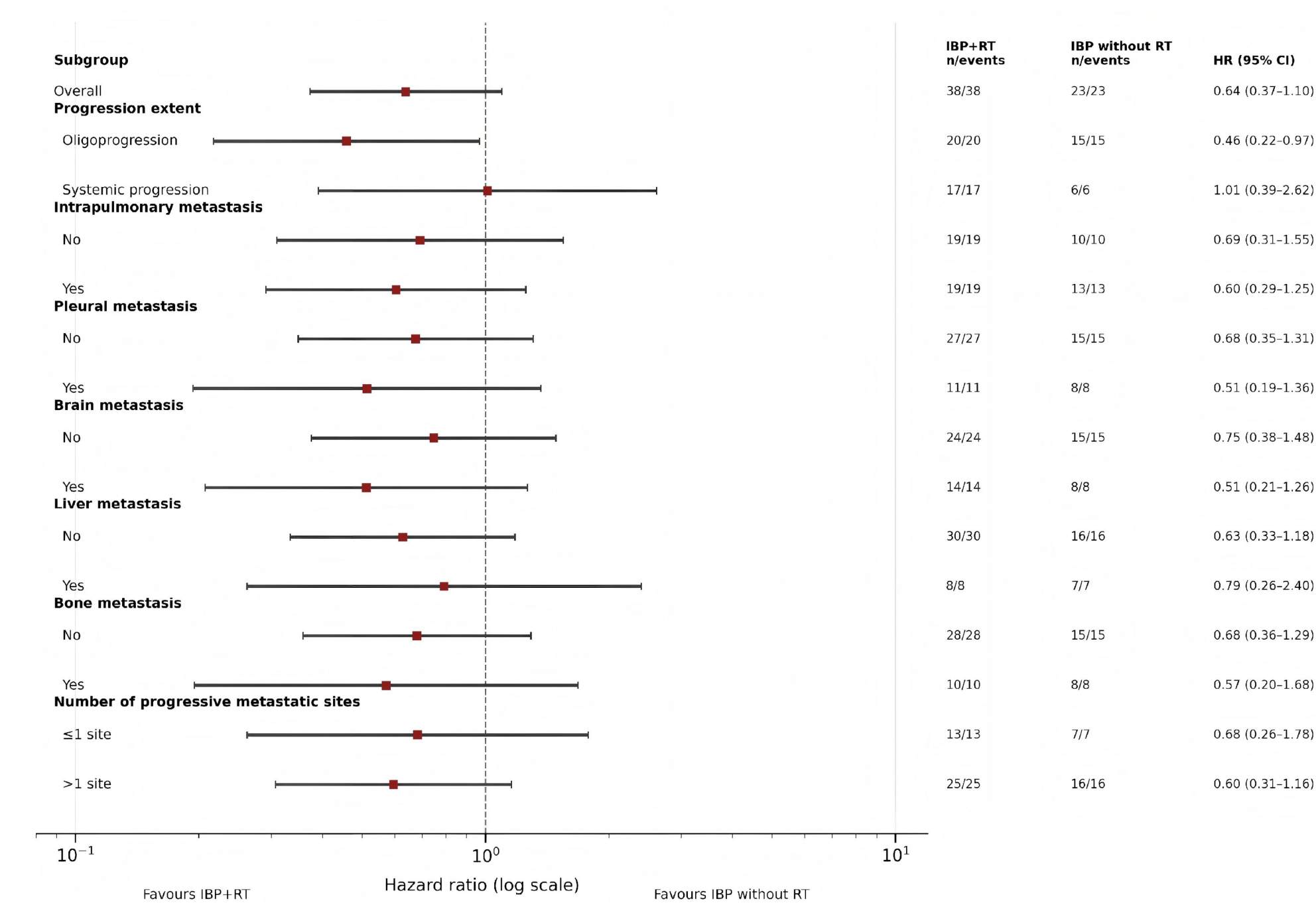
Radiotherapy did not significantly improve IBP-PFS (median, 6.97 vs. 5.43 months; HR 0.54, 95% CI 0.20–0.97; P=0.038) but was associated with a nearly two-fold prolongation of post-progression (41.1 vs. 22.0 months; HR 0.62, 95% CI 0.29–1.37; P=0.239), suggesting a potential long-term survival benefit when combined with immunotherapy beyond progression.

Figure 4. Clinical outcomes of immunotherapy beyond progression with or without radiotherapy



Subgroup Analysis

Figure 4C. Subgroup analysis of IBP-PFS



CONCLUSION

The clinical value of immunotherapy beyond progression appears to be enhanced by radiotherapy. Patients with oligoprogression and limited metastatic burden demonstrated the most favorable outcomes, suggesting that IBP + RT may be an effective strategy for appropriately selected patients after first progression.