



P1.379: Efficacy and Safety of First-Line Treatment in Patients Aged ≥75 Years With Advanced NSCLC: A Retrospective Cohort Study



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INTRODUCTION

Patients aged ≥75 years with locally advanced or metastatic non-small cell lung cancer (NSCLC) remain underrepresented in clinical trials, and the optimal first-line treatment strategy for this population remains uncertain. We evaluated the efficacy and safety of different first-line systemic treatment strategies in older patients with driver-negative advanced NSCLC using real-world data.

METHODS

In this single-center retrospective cohort study, we included treatment-naïve patients aged ≥75 years with driver-negative, unresectable stage IIIB/IIIC or stage IV NSCLC who received first-line systemic therapy between September 2016 and March 2026. Patients were grouped according to their first-line regimen into chemotherapy alone (C), immunotherapy alone (I), immunotherapy plus chemotherapy (I+C), chemotherapy plus antiangiogenic therapy (C+A), immunotherapy plus antiangiogenic therapy (I+A), or immunotherapy plus chemotherapy plus antiangiogenic therapy (I+C+A). Progression-free survival (PFS) and overall survival (OS) were assessed using the Kaplan-Meier method and Cox proportional hazards models. Objective response rate and disease control rate were evaluated according to RECIST version 1.1.

DISCUSSION AND CONCLUSION

Actionable Take Away Message

- In patients aged ≥75 years with driver-negative advanced NSCLC, first-line immunotherapy alone may offer the preferred balance of efficacy and safety. Treatment should prioritize sustainable, individualized care over routine intensification.
- Future Direction for Research
 - Prospective studies dedicated to older adults should identify patients who benefit from combination strategies and establish evidence-based, age-specific treatment pathways.

REFERENCES & ACKNOWLEDGEMENTS

References:

- Bray F, Laversanne M, Sung H, Ferlay J, Siegel RL, Soerjomataram I, Jemal A. Global cancer statistics 2022: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2024;74:229-263. doi:10.3322/caac.21834.
- Hendriks LEL, Remon J, Faivre-Finn C, Garassino MC, Heymach JV, Kerr KM, et al. Non-small-cell lung cancer. Nat Rev Dis Primers. 2024;10:71. doi:10.1038/s41572-024-00551-9.
- Riely GJ, Wood DE, Aisner DL, Axtell AL, Bauman JR, Bharat A, et al. Non-Small Cell Lung Cancer, Version 4.2026, NCCN Clinical Practice Guidelines in Oncology. J Natl Compr Canc Netw. 2026;24:e260017. doi:10.6004/jnccn.2026.0017.
- Nishio M, Barlesi F, West H, Ball S, Bordoni R, Cobo M, et al. Atezolizumab plus chemotherapy for first-line treatment of nonsquamous NSCLC: results from the randomized phase III IMpower132 trial. J Thorac Oncol. 2021;16:653-664. doi:10.1016/j.jtho.2020.11.025.
- Zhou C, Chen G, Huang Y, Zhou J, Lin L, Feng J, et al. Camrelizumab plus carboplatin and pemetrexed versus chemotherapy alone in chemotherapy-naïve patients with advanced nonsquamous non-small-cell lung cancer (Camel): a randomised, open-label, multicentre, phase 3 trial. Lancet Respir Med. 2021;9:305-314. doi:10.1016/S2213-2600(20)30365-9.
- Yang Y, Wang Z, Fang J, Yu Q, Han B, Cang S, et al. Updated overall survival data and predictive biomarkers of sintilimab plus pemetrexed and platinum as first-line treatment for locally advanced or metastatic nonsquamous NSCLC in the phase 3 ORIENT-11 study. J Thorac Oncol. 2021;16:2109-2120. doi:10.1016/j.jtho.2021.07.015.
- Lu S, Wang J, Yu Y, Yu X, Hu Y, Ai X, et al. Tislelizumab plus chemotherapy as first-line treatment for locally advanced or metastatic nonsquamous NSCLC (RATIONALE 304): a randomized phase 3 trial. J Thorac Oncol. 2021;16:1512-1522. doi:10.1016/j.jtho.2021.05.005.
- Sedrak MS, Freedman RA, Cohen HJ, Muss HB, Jatoti A, Klepin HD, et al. Older adult participation in cancer clinical trials: a systematic review of barriers and interventions. CA Cancer J Clin. 2021;71:78-92. doi:10.3322/caac.21638.

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RESULTS

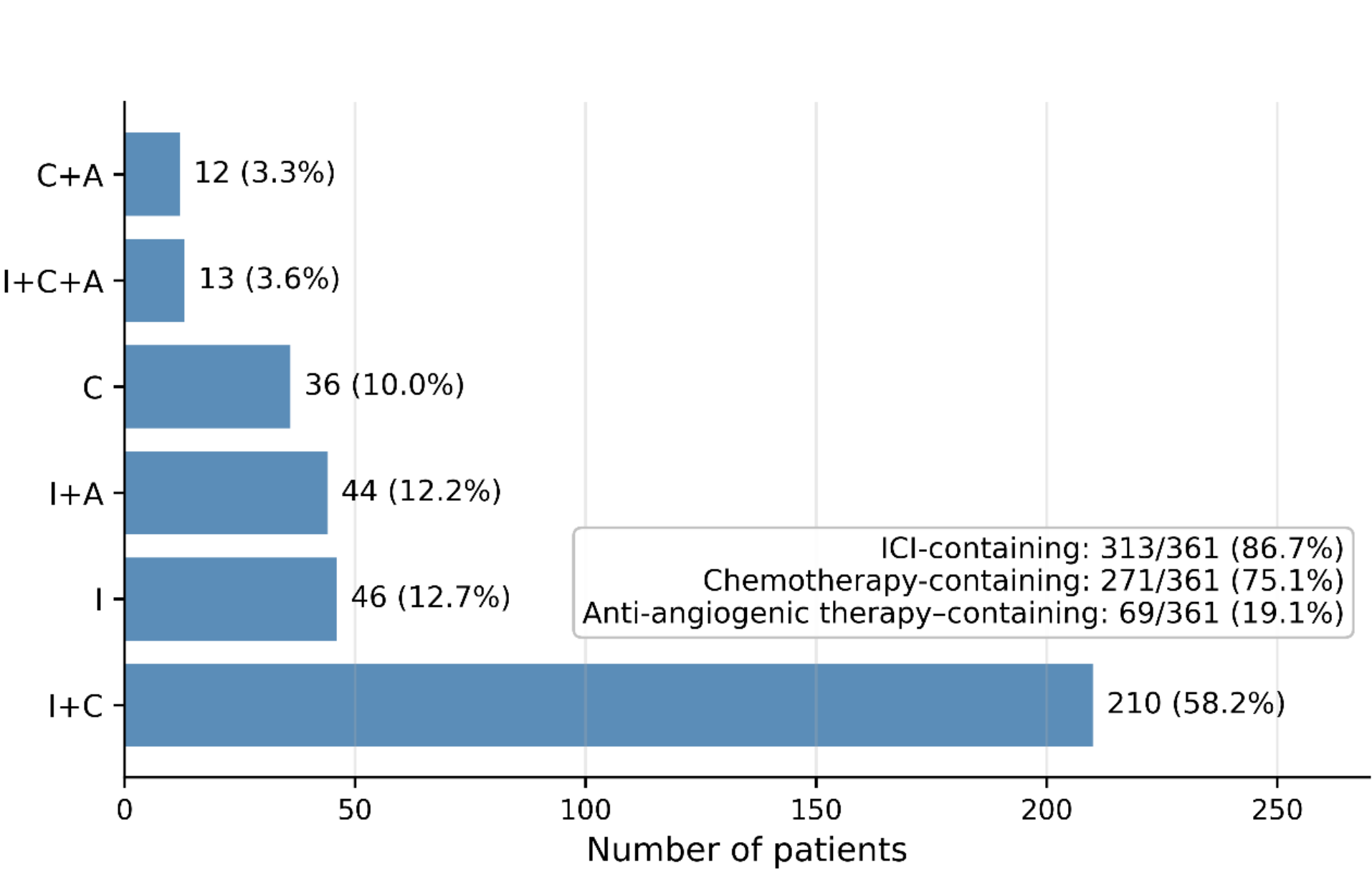


Figure 1. Distribution of first-line treatment regimens.

The horizontal bar chart shows the number and proportion of patients receiving each first-line regimen. C, chemotherapy alone; I, ICI monotherapy; I+C, ICI plus chemotherapy; C+A, chemotherapy plus anti-angiogenic therapy; I+A, ICI plus anti-angiogenic therapy; I+C+A, ICI plus chemotherapy and anti-angiogenic therapy; ICI, immune checkpoint inhibitor.

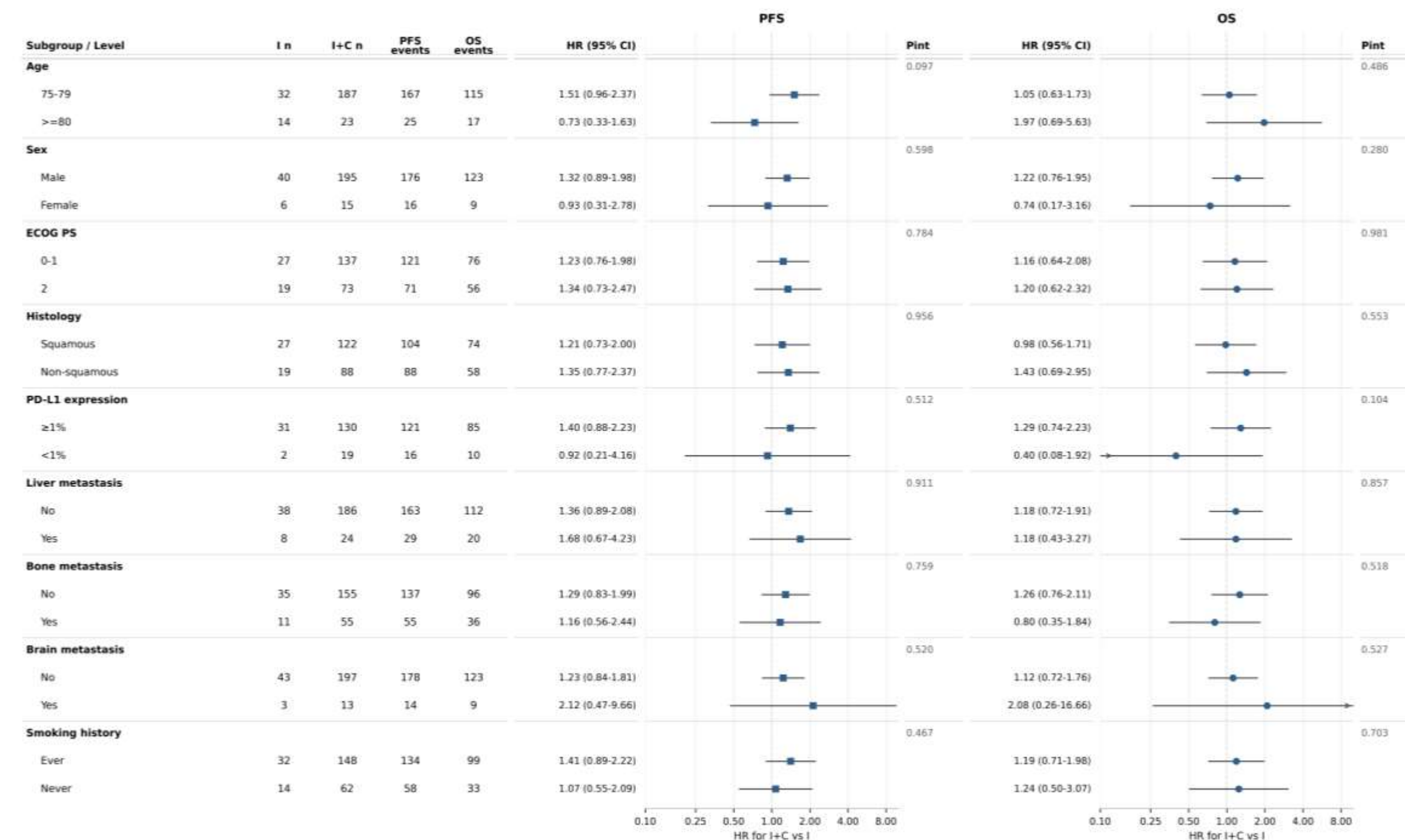


Figure 3. Exploratory subgroup analyses of PFS and OS comparing I+C with ICI monotherapy.

Interaction P values were calculated using treatment-by-subgroup interaction terms to assess whether the association between treatment group and outcome differed across subgroup strata.

Table 1. Baseline characteristics by first-line treatment group.

Characteristics	C (N=36)	I (N=46)	I+C (N=210)	C+A (N=12)	I+A (N=44)	I+C+A (N=13)	P-value
Sex, n (%)							0.196
Male	33 (91.7)	40 (87.0)	195 (92.9)	9 (75.0)	39 (88.6)	13 (100.0)	
Female	3 (8.3)	6 (13.0)	15 (7.1)	3 (25.0)	5 (11.4)	0 (0.0)	
Age, n (%)							<0.001
75-79 years	36 (100.0)	32 (69.6)	187 (89.0)	12 (100.0)	32 (72.7)	10 (76.9)	
80-85 years	0 (0.0)	10 (21.7)	22 (10.5)	0 (0.0)	8 (18.2)	2 (15.4)	
>85 years	0 (0.0)	4 (8.7)	1 (0.5)	0 (0.0)	4 (9.1)	1 (7.7)	
ECOG PS, n (%)							0.071
0-1	15 (41.7)	27 (58.7)	137 (65.2)	10 (83.3)	30 (68.2)	9 (69.2)	
2	21 (58.3)	19 (41.3)	73 (34.8)	2 (16.7)	14 (31.8)	4 (30.8)	
Smoking, n (%)							0.546
Ever smoker	30 (83.3)	32 (69.6)	148 (70.5)	7 (58.3)	33 (75.0)	9 (69.2)	
Never smoker	6 (16.7)	14 (30.4)	62 (29.5)	5 (41.7)	11 (25.0)	4 (30.8)	
TNM stage, n (%)							0.919
IIIC	0 (0.0)	0 (0.0)	2 (1.0)	0 (0.0)	0 (0.0)	0 (0.0)	
IV	36 (100.0)	46 (100.0)	208 (99.0)	12 (100.0)	44 (100.0)	13 (100.0)	
Histology, n (%)							0.997*
Squamous	21 (58.3)	27 (58.7)	122 (58.1)	1 (8.3)	22 (50.0)	4 (30.8)	
Non-squamous	15 (41.7)	19 (41.3)	88 (41.9)	11 (91.7)	22 (50.0)	9 (69.2)	
Metastatic site, n (%)							
Liver	7 (19.4)	8 (17.4)	24 (11.4)	2 (16.7)	9 (20.5)	2 (15.4)	0.557
Bone	10 (27.8)	11 (23.9)	55 (26.2)	5 (41.7)	10 (22.7)	6 (46.2)	0.487
Brain	3 (8.3)	3 (6.5)	13 (6.2)	2 (16.7)	4 (9.1)	3 (23.1)	0.257
PD-L1, n (%)							0.503
TPS ≥1%	15/20 (75.0)	31/33 (93.9)	130/149 (87.2)	4/5 (80.0)	29/33 (87.9)	9/10 (90.0)	
TPS <1%	5/20 (25.0)	2/33 (6.1)	19/149 (12.8)	1/5 (20.0)	4/33 (12.1)	1/10 (10.0)	

P values were calculated using χ^2 or Fisher's exact test, as appropriate. PD-L1 was analyzed in tested patients.

* Calculated among C, I, and I+C groups only; histology in anti-angiogenic groups was interpreted descriptively because anti-angiogenic therapy is histology-dependent.

Abbreviations: ECOG, Eastern Cooperative Oncology Group; ICI, immune checkpoint inhibitor; PD-L1, programmed death ligand 1; TPS, tumor proportion score; TNM, tumor-node-metastasis.

Figure 2. Progression-free survival and overall survival according to chemotherapy and immunotherapy strategies.

(A) PFS for ICI-containing versus non-ICI regimens. (B) OS for ICI-containing versus non-ICI regimens. (C) PFS for chemotherapy-containing versus chemotherapy-free regimens. (D) OS for chemotherapy-containing versus chemotherapy-free regimens. (E) PFS for I+C versus ICI monotherapy. (F) OS for I+C versus ICI monotherapy.