

First-line Treatment for Unresectable Pulmonary Lymphoepithelial Carcinoma: A Real-world Comparison of Platinum-based Doublet Chemotherapy With or Without PD-1 Inhibitors

Bo Cheng, Lipeng Xue, Yi Feng, Jianxing He*, Wenhua Liang*. Department of Thoracic Surgery and Oncology, the First Affiliated Hospital of Guangzhou Medical University, Guangzhou Institute of Respiratory Health, State Key Laboratory of Respiratory Disease, National Clinical Research Center for Respiratory Disease, Guangzhou, China.

Background

Pulmonary lymphoepithelial carcinoma (PLEC) is a rare malignancy with limited evidence to guide the management of unresectable disease. In particular, the clinical benefit of adding programmed cell death 1 (PD-1) inhibitors to chemotherapy and the optimal chemotherapy backbone remain uncertain. We compared platinum-based doublet chemotherapy with or without PD-1 inhibition and further explored regimen-specific outcomes.

Methods

Consecutive patients with unresectable stage IIIA–IVB PLEC receiving gemcitabine-platinum (GP), taxane-platinum (TP), or pemetrexed-platinum (AP), alone (Chemo-alone) or with PD-1 inhibition (Chemo-IO), were retrospectively included. The primary endpoint was progression-free survival (PFS); secondary endpoints were overall survival (OS), objective response rate (ORR), and disease control rate (DCR). Survival was estimated using Kaplan–Meier and Cox models, with OS analyses administratively censored at 60 months; inverse probability of treatment weighting (IPTW) was used as a sensitivity analysis.

Results

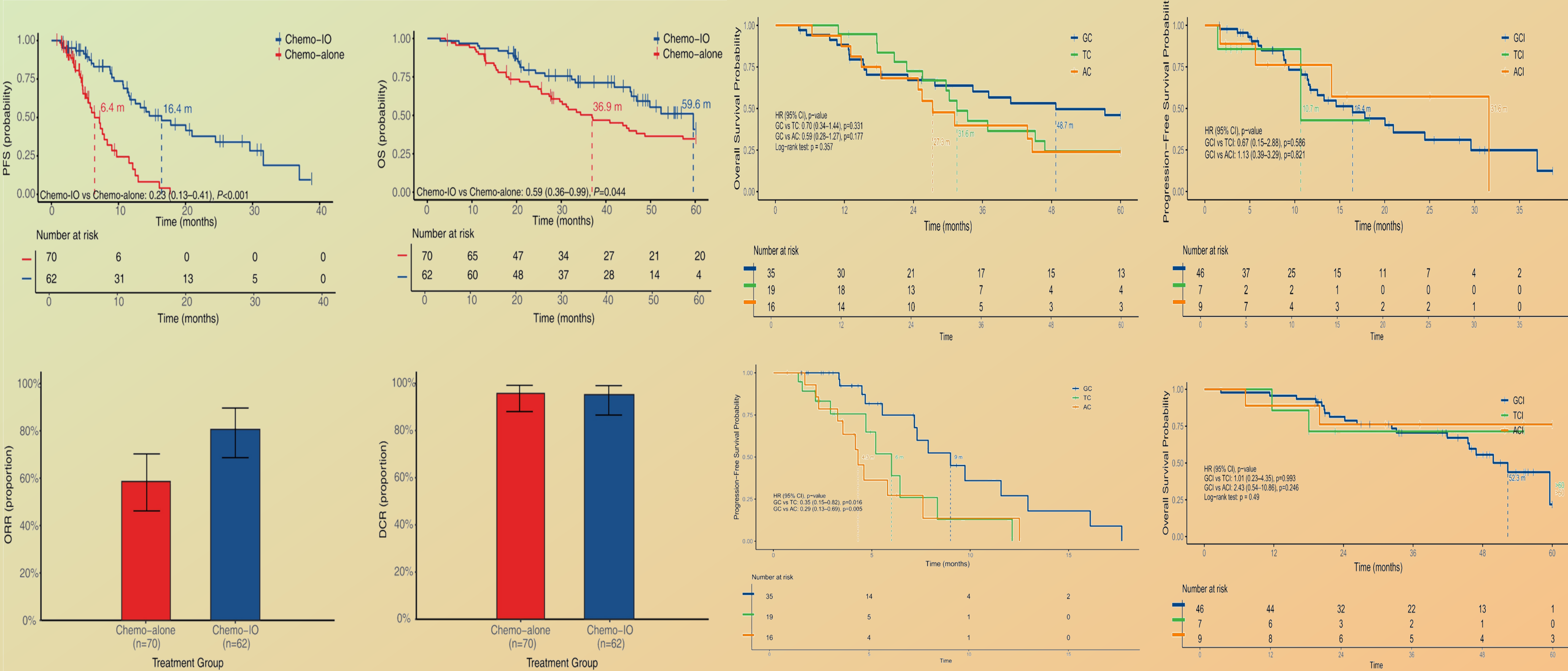
Among 132 patients, 70 received Chemo-alone and 62 received Chemo-IO. Chemo-IO was associated with longer PFS (median 16.4 vs 6.4 months; HR 0.23; 95% CI, 0.13–0.41; $P < 0.001$) and longer OS in unweighted analysis (59.6 vs 36.9 months; HR 0.59; 95% CI, 0.36–0.99; $P = 0.044$). ORR was higher with Chemo-IO (80.6% vs 58.6%; $P = 0.008$), whereas DCR was similar (95.2% vs 88.6%; $P = 0.216$). In exploratory regimen-level analyses, Chemo-alone median PFS was 9.0, 6.0, and 4.3 months with GP, TP, and AP; GP showed a favorable PFS signal compared with TP (HR, 0.35; 95% CI, 0.15–0.82; $P = 0.016$) and AP (HR, 0.29; 95% CI, 0.13–0.69; $P = 0.005$). PFS and OS did not differ significantly across Chemo-IO regimens.

Conclusion

In this retrospective cohort, first-line Chemo-IO was associated with longer PFS and higher ORR, whereas OS findings should be interpreted cautiously. The favorable GP signal observed in the Chemo-alone setting was exploratory, and regimen-level differences were less evident after immunotherapy was incorporated. These findings may inform treatment selection and support prospective studies.

Table and Figures

Characteristic	Chemo-alone (n=70)	Chemo-IO (n=62)	SMD (unweighted)	Chemo-alone (weighted)	Chemo-IO (weighted)	SMD (weighted)
Age, years	53.0 (46.2–60.0)	55.5 (46.5–62.0)	0.049	54.0 (9.5)	54.2 (10.3)	0.063
Sex, n (%)			0.395			0.159
Female	35 (50.0%)	43 (69.4%)		56.9%	64.6%	
Male	35 (50.0%)	19 (30.6%)		43.1%	35.4%	
ECOG PS, n (%)			0.058			0.101
0	49 (70.0%)	45 (72.6%)		72.8%	77.2%	
1	21 (30.0%)	17 (27.4%)		27.2%	22.8%	
Stage, n (%)			0.365			0.317
IIIA	16 (22.9%)	6 (9.7%)		20.6%	20.4%	
IIIB	17 (24.3%)	16 (25.8%)		22.5%	22.5%	
IIIC	0 (0.0%)	4 (6.5%)		0.0%	4.9%	
IV	37 (52.9%)	36 (58.1%)		56.8%	52.2%	
Treatment initiation, n (%)			2.497			2.418
<2019	53 (75.7%)	0 (0.0%)		74.5%	0.0%	
≥2019	17 (24.3%)	62 (100.0%)		25.5%	100.0%	
PD-L1, n (%)			0.506			0.078
(+)	23 (32.9%)	36 (58.1%)		43.3%	47.2%	
(-)	3 (4.3%)	2 (3.2%)		4.0%	3.5%	
Not tested	44 (62.9%)	24 (38.7%)		52.7%	49.4%	



E-mail: chengbodoctor@163.com

No AI tools were used in the development of this presentation.



广州医科大学附属第一医院
THE FIRST AFFILIATED HOSPITAL OF GUANGZHOU MEDICAL UNIVERSITY
国家呼吸医学中心
NATIONAL CENTER FOR RESPIRATORY MEDICINE

