

Y. Liang¹, L. Kang², Y. Lin³, Q. Zou⁴, C. Huang⁵, J. Mai⁶
¹Department of Medical Oncology, Sun Yet-sen University Cancer Center, Guangzhou/CN, ²Department of Thoracic Medical Oncology, Yuebei People's Hospital Affiliated to Shantou University Medical College, Shaoguan/CN, ³Department of Thoracic Surgery, Sun Yet-sen University Cancer Center, Guangzhou/CN, ⁴State Key Laboratory of Oncology in South China, Guangdong Provincial Clinical Research Center for Cancer, Sun Yat-sen University Cancer Center, Guangzhou/CN, ⁵Department of Medical Oncology, National Cancer Center/National Clinical Research Center for Cancer/Cancer Hospital & Shenzhen Hospital, Chinese Academy of Medical Sciences & Peking Union Medical College, Shenzhen/CN, ⁶Department of Medical Oncology, Jiangmen Central Hospital, Jiangmen/CN
Correspondence: liangying@sysucc.org.cn

INTRODUCTION

Primary pulmonary lymphoepithelioma-like carcinoma (PLELC) is a rare and distinctive pathologic subtype of NSCLC that is closely related to EBV infection. Currently, there is a lack of longitudinal data analyzing the clinical value of dynamic plasma EBV DNA monitoring in recurrent or metastatic PLELC (RM-PLELC). Therefore, this study aimed to evaluate the value of baseline plasma EBV DNA load and its longitudinal kinetic changes in predicting efficacy and prognosis in patients with RM-PLELC receiving first-line chemotherapy.

METHODS

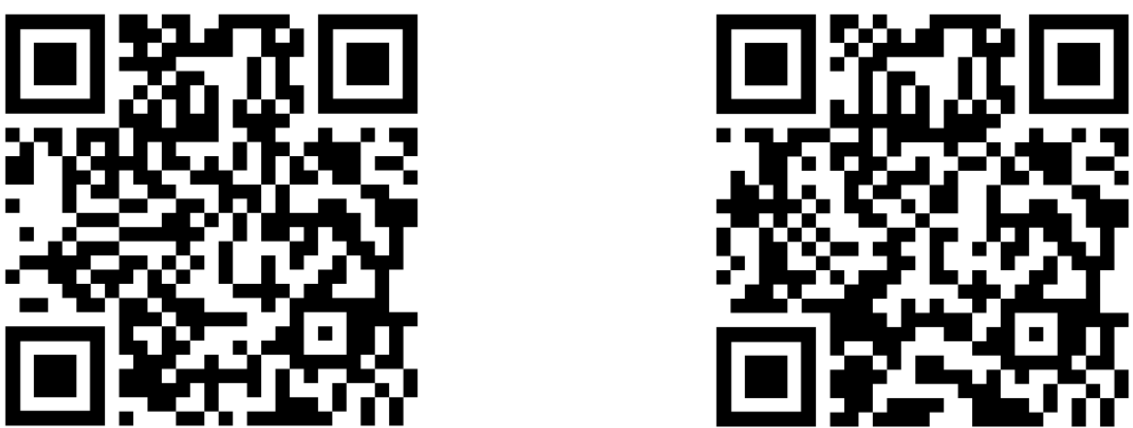
Design: A total of 144 RM-PLELC patients who underwent baseline plasma EBV DNA testing or had longitudinal monitoring of plasma EBV DNA before and after treatment were retrospectively enrolled. The relationships between EBV DNA dynamics and clinical characteristics, efficacy, survival, prognosis, and treatment were analyzed. Treatment response was assessed by Response Evaluation Criteria in Solid Tumors, version 1.1 (RECIST 1.1).

DISCUSSION AND CONCLUSION

This study suggests that plasma EBV DNA could be a surrogate biomarker for efficacy evaluation and prognosis prediction in patients with RM-PLELC receiving first-line chemotherapy. Baseline plasma EBV DNA load and its longitudinal changes may help identify patients with RM-PLELC who are likely to obtain better outcomes, and could be incorporated into the guidance of clinical practice as well as personalized disease management. Given the rarity of RM-PLELC, large-scale prospective cohort studies are needed to validate these observational findings, comparatively assess the efficacy of diverse chemo-immunotherapy combinations, and accumulate mature OS follow-up data. Additional investigations should seek to refine EBV-DNA-stratified, risk-adapted treatment algorithms to improve survival outcomes among patients with RM-PLELC.

REFERENCES & ACKNOWLEDGEMENTS

List the most critical references and recognize any support or contributions from others.
• Use QR code to save space and to link to more extensive lists or related works.

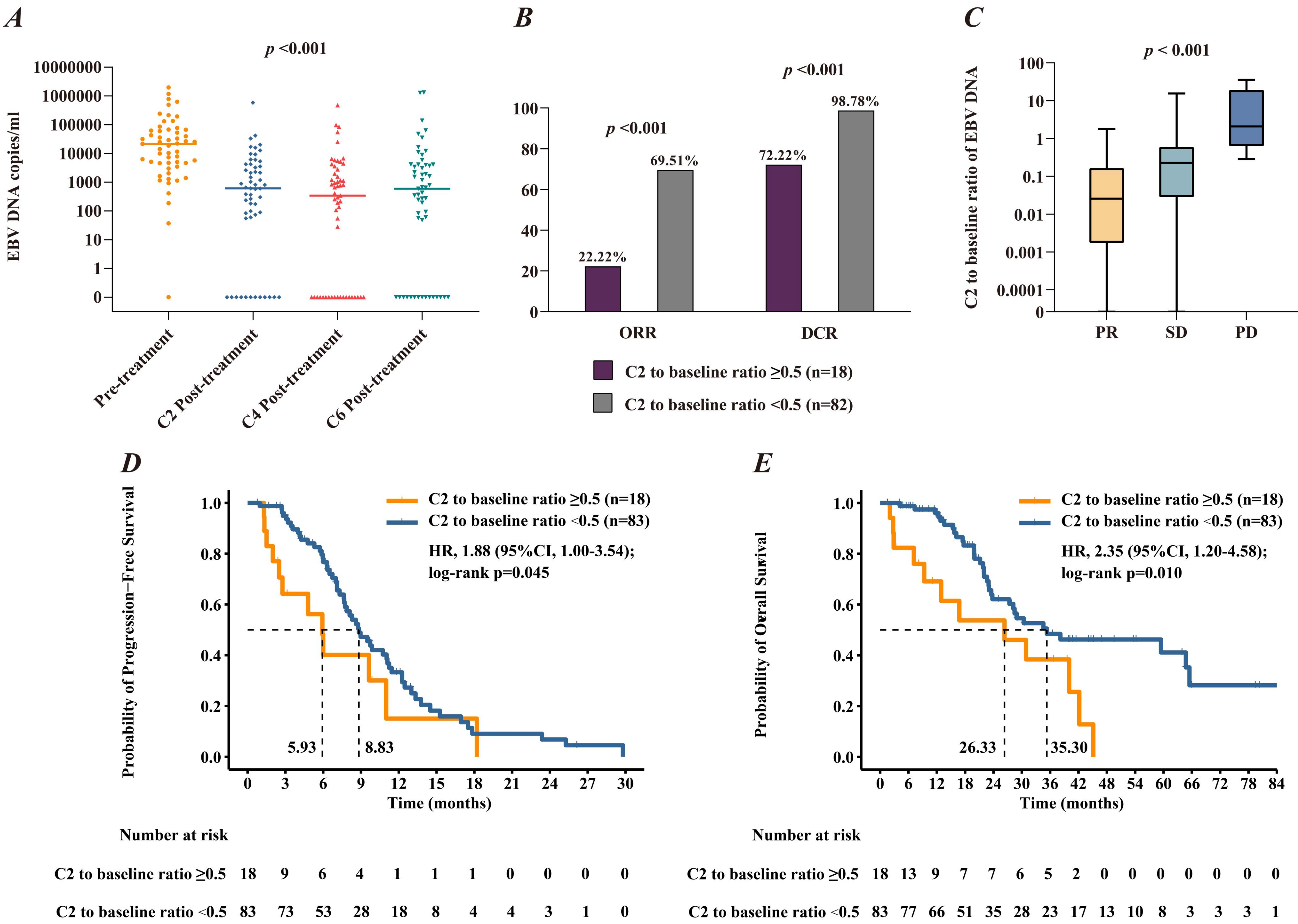


Artificial Intelligence (AI) Use Disclaimer
No artificial intelligence (AI) were used in the development of educational materials.

RESULTS

Table 1. Baseline clinical characteristics of patients (n = 144).

Characteristics	Number (%)	Characteristics	Number (%)
Sex		Distant metastasis	
Male	66 (45.83%)	No	9 (6.25%)
Female	78 (54.17%)	Single site	67 (46.53%)
Age, years		Multiple sites	68 (47.22%)
≥60	35 (24.31%)	Baseline EBV DNA (copies/mL)	
<60	109 (75.69%)	0	5 (3.47%)
Median (range)	52 (29-77)	>0	139 (96.53%)
ECOG PS		Median (range)	27150 (0-65000000)
0-1	134 (93.06%)	Interquartile range	4570-121750
2	10 (6.94%)		
Smoking status			
Never	104 (72.22%)		
Current or former	40 (27.78%)		



Figures 1. (A) Dynamic changes of plasma EBV DNA load after C2, C4 and C6 treatment. (B) Comparison of ORR and DCR between different C2/baseline EBV DNA ratio groups. (C) Changes of C2/baseline EBV DNA ratios among patients with different therapeutic response. (D) Kaplan-Meier survival curve of PFS in the different C2/baseline EBV DNA ratio groups. (E) Kaplan-Meier survival curve of OS in the different C2/baseline EBV DNA ratio groups. Abbreviations: C2, cycle 2; ORR, objective response rate; DCR, disease control rate; PR, partial response; SD, stable disease; PD, progressive disease; PFS, progression-free survival; OS, overall survival.