

EP13.14: Clinical Characteristics, Patterns of Progression, and Survival Outcomes of Extensive Stage Small Cell Lung Cancer Patients Receiving Long Term PD-1/PD-L1 Inhibitor Therapy: A Single Center, Real world Retrospective Study

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INTRODUCTION

SCLC is a highly aggressive and poorly prognostic low-differentiated neuroendocrine tumor. Although PD-(L)1 inhibitors have reshaped the treatment landscape of ES-SCLC, most patients experience rapid progression with a median PFS of only 4–6 months. Real world evidence regarding treatment duration, post progression strategies, and characteristics of long-term responders remains limited.

METHODS

This study is a single-center, retrospective real-world study that included ES-SCLC patients from May 2018 to January 2026. receiving PD-1/PD-L1 inhibitors as first-line or subsequent treatment, continuous immunotherapy for ≥10 cycles.

- Inclusion criteria**
- histologically or cytologically confirmed ES-SCLC
 - receiving PD-(L)1 inhibitors for ≥10 cycles
 - complete records of first-line and post-progression treatments

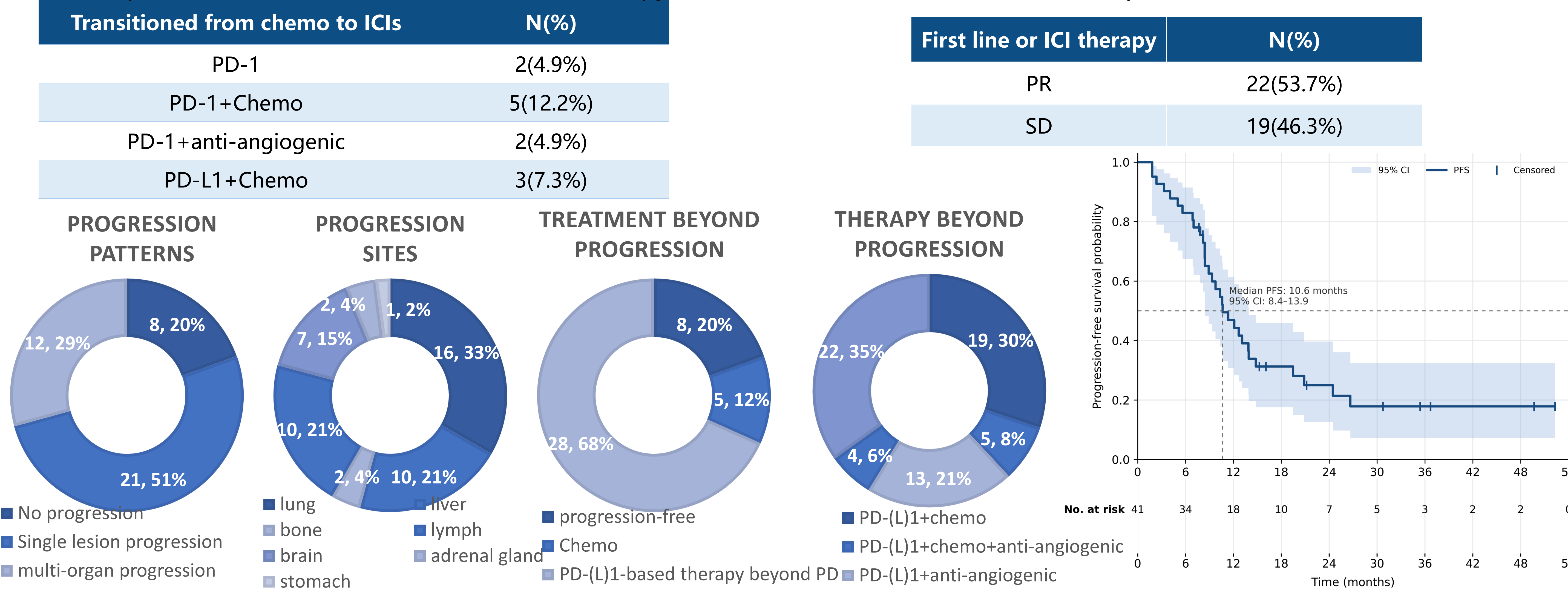
- Treatment therapy**
- PD-(L)1+chemo
 - PD-(L)1+chemo+anti-angiogenic

Baseline	N=41
Age, Range	64 (44-79)
≤65	24 (58.5%)
> 65	17 (41.5%)
Sex	
Male	33 (80.5%)
Female	8 (19.5%)
ECOG	
0	4 (9.8%)
1	28 (68.3%)
2	7 (17.1%)
3	2 (4.9%)
Smoking status	
Yes	35 (85.4%)
Former	3 (7.3%)
No	3 (7.3%)

First-line setting	N(%)	Therapy Beyond Progression	events
Chemotherapy	12(29.3%)	PD-(L)1+chemo	19
PD-1+Chemotherapy	16(39.0%)	PD-(L)1+chemo+anti-angiogenic	5
PD-L1+Chemotherapy	12(29.3%)	PD-(L)1+anti-angiogenic	13
PD-L1+Chemo		PD-(L)1	4
+anti-angiogenic	1(2.4%)	Local treatments	22

RESULTS

A total of 41 ES-SCLC patients receiving long-cycle ICIs treatment were included. In the first-line setting, 16 patients received PD-1 inhibitor plus chemo, 12 received PD-L1 inhibitor plus chemo, and 1 received PD-L1 inhibitor combined with chemo and anti-angiogenic therapy, 12 patients received chemo alone and transitioned to ICIs in the later stage still achieved sustained disease control. All patients responded to ICIs treatment. At the data cutoff, 33 patients experienced PD, the majority (28 patients) continued treatment with one or more lines of ICIs based therapy beyond progression, including 19 received ICIs combined with chemo, 18 received ICIs combined with anlotinib or bevacizumab, and 4 continued ICIs-mono. Local treatments—including radiotherapy, iodine-125 seed implantation, and transarterial infusion chemotherapy—were applied in 22 patients. Additionally, 3 patients switched from PD-1 to PD-L1 inhibitors after progression. 21 presented with oligoprogression involving a single lesion. The most common sites of progression were the primary lung lesion, lymph nodes, liver metastases, and brain metastases. The predominant pattern of progression was enlargement of the primary tumor (21 patients).The median duration of ICIs treatment was 22.1 months (95% CI, 13.3–30.7), and the median PFS was 10.6 months (95% CI, 8.4–13.9). One patient has remained on PD-L1 inhibitor therapy for 52 months and is still under follow-up.



DISCUSSION AND CONCLUSION

Actionable Take Away Message
In patients with ES-SCLC receiving long-term ICI therapy, continuation of ICIs-based strategies beyond PD is a widely treatment approach. Sustained reliance on immunotherapy—rather than early discontinuation—combined with local treatments or anti-angiogenic agents provides important clinical benefit in selected patients. First-line chemotherapy may still become candidates for prolonged benefit from subsequent ICIs.

Future Direction for Research
predictive biomarkers, efficacy of cross-line ICI-based therapies, and progression patterns, the role and timing of local treatments should be further clarified. In addition, the dominant progression pattern of primary tumor enlargement highlights the necessity of mechanistic research into immunotherapy resistance, including alterations in the tumor microenvironment and immune cell exhaustion.

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