



P1.210: Nodal Pathologic Response After Neoadjuvant Chemoimmunotherapy Is Independently Associated with Disease-Free Survival in Clinical N2 NSCLC



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INTRODUCTION

Clinical question

Does lymph-node response add prognostic information beyond primary-tumor response after neoadjuvant chemoimmunotherapy?

150

patients

53.8

months median follow-up

66.0%

nodal MPR/pCR

Clinical stage IIIA–IIIB N2 NSCLC

Dual-center retrospective cohort

NCIT followed by complete resection

Neoadjuvant chemoimmunotherapy (NCIT): ≥2 cycles of platinum chemotherapy plus PD-1/PD-L1 blockade before R0 surgery and systematic lymph-node dissection.

METHODS

Study design

1 Clinical N2

≥18 y; histologic NSCLC

2 NCIT

≥2 cycles platinum + PD-1/PD-L1

3 R0 surgery

Resection + lymph-node dissection

4 T / N

pCR or MPR: ≤10% viable tumor

5 DFS / OS

Outcomes measured from surgery

Pathologic response framework

Primary tumor + Lymph nodes

MPR / pCR

MPR / pCR

Four integrated T/N response groups

Statistical plan

Kaplan–Meier and log-rank tests

Prespecified parsimonious Cox model

Fully adjusted sensitivity model

Primary model: clinical stage + primary-tumor response + nodal response + adjuvant therapy.
Follow-up through October 1, 2025. Ethics approval: IIT No. 0965.

Primary exposure: nodal MPR/pCR assessed independently of primary-tumor MPR/pCR.

RESULTS

A

DFS: ypT-MPR/pCR vs ypN-MPR/pCR

p = 0.59

No. at risk

Response Group

B

OS: ypT-MPR/pCR vs ypN-MPR/pCR

p = 1

No. at risk

Response Group

Adjusted effects in the parsimonious model

Disease-free survival

Nodal MPR/pCR

0.493 (0.263–0.924); P=.027

Primary-tumor MPR/pCR

0.550 (0.295–1.025); P=.060

Adjuvant therapy

0.753 (0.427–1.329); P=.328

Overall survival

Nodal MPR/pCR

0.488 (0.255–0.934); P=.030

Primary-tumor MPR/pCR

0.424 (0.222–0.810); P=.009

Adjuvant therapy

0.475 (0.267–0.846); P=.011

Nodal MPR/pCR: 51% lower adjusted hazard for DFS

Sensitivity model: aHR 0.506 (95% CI 0.266–0.963), P=.038

Integrated T/N response at 36 months

36-month DFS

36-month OS

T + N response

N response only

T response only

Neither response

BEST OUTCOMES

T + N response

36-month DFS

36-month OS

88.4%

91.4%

Univariable Cox analysis

Variable	DFS HR (95% CI); P	OS HR (95% CI); P
ypT response	0.431 (0.245–0.759); .004	0.343 (0.190–0.618); <.001
ypN response	0.414 (0.235–0.727); .002	0.377 (0.212–0.670); <.001
ypN2 response	0.470 (0.260–0.840); .010	0.490 (0.270–0.880); .018
Sleeve/bronchoplasty	1.793 (1.010–3.183); .046	0.876 (0.460–1.668); .687
N2 nodes, per unit	1.024 (0.993–1.056); .131	1.032 (1.001–1.064); .045
Adjuvant therapy	0.738 (0.419–1.301); .293	0.475 (0.268–0.844); .011

Multivariable Cox analysis

Variable	DFS HR (95% CI); P	OS HR (95% CI); P
Stage IIIB	1.080 (0.569–2.049); .813	0.895 (0.453–1.768); .749
ypT response	0.550 (0.295–1.025); .060	0.424 (0.222–0.810); .009
ypN response	0.493 (0.263–0.924); .027	0.488 (0.255–0.934); .030
Adjuvant therapy	0.753 (0.427–1.329); .328	0.475 (0.267–0.846); .011

Final model: DFS n=150/events=49; OS n=150/deaths=47.

REFERENCES, ACKNOWLEDGEMENTS & DISCLOSURES

Key references

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Acknowledgements

Funding: Zhejiang “Vanguard” and “Leading Goose” R&D Project 2025C02095.
Conflicts of interest: none declared.
Data: available from the corresponding author subject to ethics and privacy protections.

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DISCUSSION AND CONCLUSION

What this study adds

Nodal response was not merely a surrogate for primary-tumor regression.

The most favorable survival occurred with concordant T + N MPR/pCR.

Integrated pathologic assessment may improve postoperative risk stratification.

Key limitations

Retrospective, surgery-selected cohort; male/squamous predominance; incomplete staging and treatment details; missing nodal-burden data; longer OS follow-up needed.

Future direction for research

Prospectively validate integrated T/N response; capture nodal-burden data; extend OS follow-up; and evaluate adjuvant benefit within response strata.

TAKE-HOME: Nodal MPR/pCR independently stratified DFS after NCIT and surgery in clinical N2 NSCLC.