

INTRODUCTION

- Definitive concurrent chemoradiotherapy (CCRT) remains the standard treatment for unresectable stage III NSCLC, but relapse commonly occurs
- Prognostic factors for progression free survival (PFS) are not completely defined.
- Brain metastasis is an important pattern of disease progression with substantial neurologic morbidities.
- We aimed to identify factors associated with PFS and brain progression after definitive CCRT.

METHODS

- Single-center retrospective cohort study (2020–2024)
- A total of **102 patients** with unresectable stage IIIB–IIIC NSCLC treated with definitive CCRT.
- PFS:** from CCRT completion to progression or death.
- Cox regression model was used to identify factors associated with PFS.
- Exploratory logistic regression evaluated predictors of brain progression.
- ROC analysis was used to determine the optimal baseline monocyte cut-off.

DISCUSSION AND CONCLUSION

Actionable Take Away Message

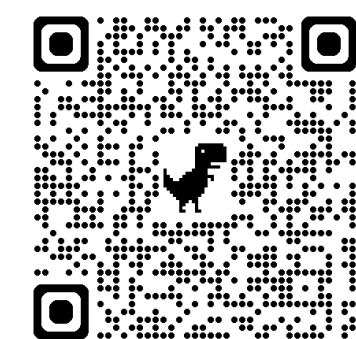
- Stage IIIC disease and ECOG ≥2 identify patients at higher risk for poor PFS after definitive CCRT.
- High percentage of **monocyte** at baseline may help identify patients at increased risk of **subsequent brain progression**.

Future Direction for Research

- Validate the association between baseline monocyte percentage and brain progression in larger, independent cohorts.
- Evaluate whether monocyte-based risk stratification can guide more individualized CNS surveillance after CCRT.

REFERENCES & ACKNOWLEDGEMENTS

QR code : Link to reference lists and related works.



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RESULTS

Patient characteristics

Median age: **69 years** , Male: **68.6%**, Adenocarcinoma: **63.7%** , Stage IIIB: **69.6%** PD-L1 ≥50%: **34.5% (29/84)** , Consolidation immunotherapy: **13.7%**

PFS:

At a median follow-up of **13.1 months**, 63 patients experienced progression and 18 died. Median PFS was **12.0 months**.

Independent predictors of inferior PFS

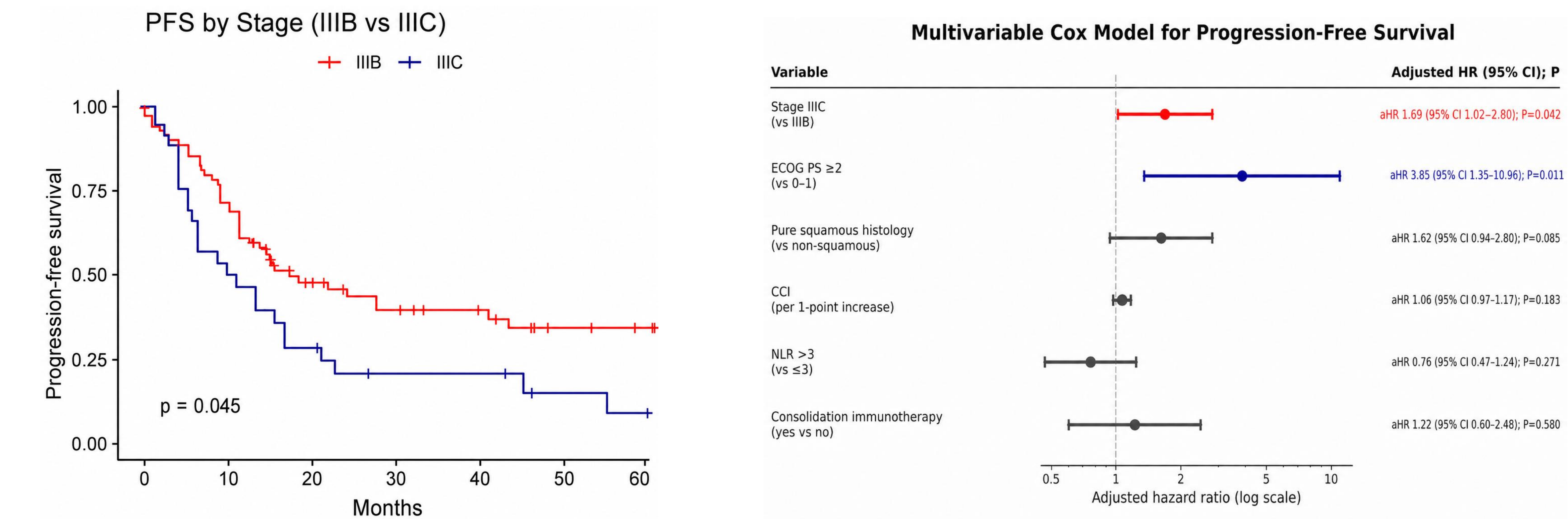


Figure 1. Progression-free survival by tumor stage and multivariable Cox regression analysis for PFS.

Brain progression occurred in 16 patients (15.7%)

Higher baseline monocyte percentage predicted brain progression (aOR 1.43 per 1% increase; 95% CI 1.16–1.76; P=0.001).

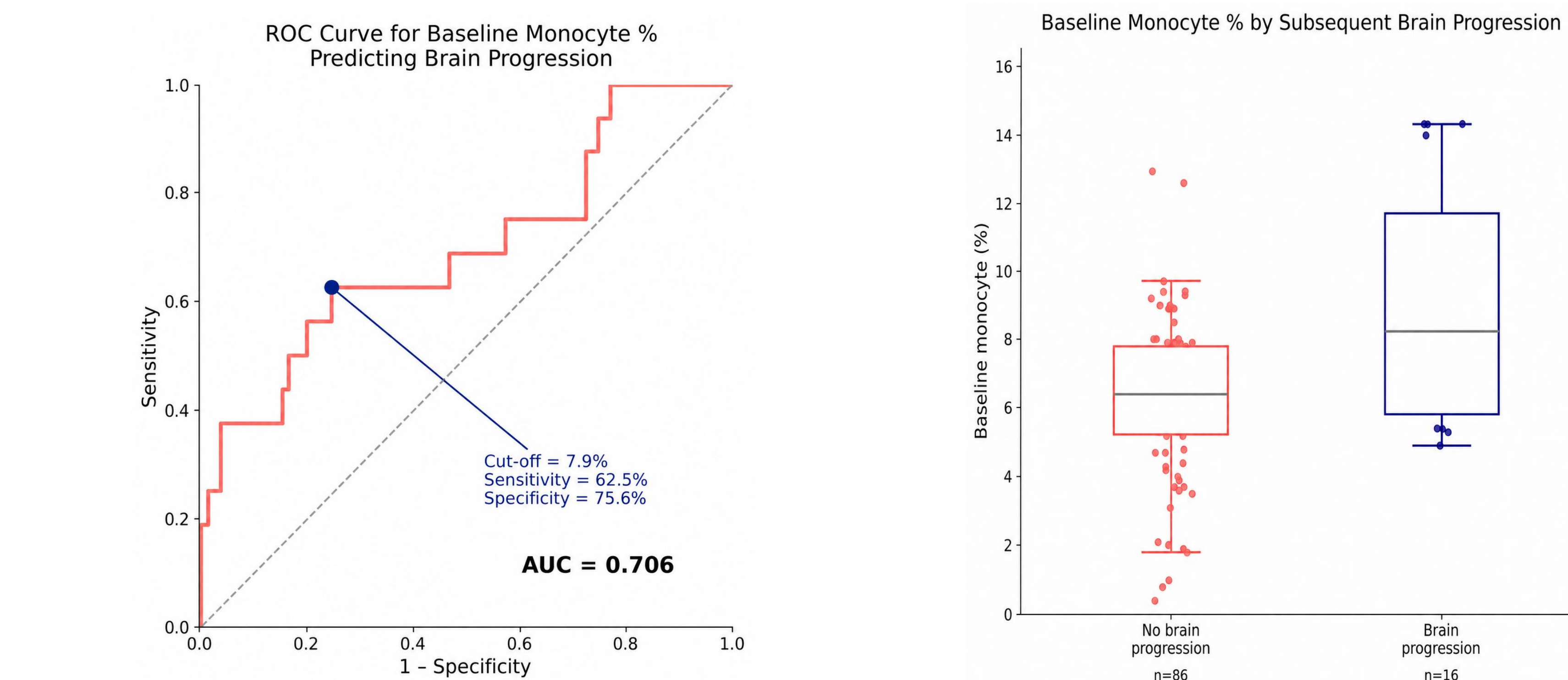


Figure 2. Association of baseline monocyte percentage with subsequent brain progression and its predictive performance by ROC analysis.