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INTRODUCTION

Lung cancer outcomes in sub-Saharan Africa (SSA) remain poorly characterized due to limited survival data and constrained access to diagnostics and treatment.

Defining survival patterns and actionable prognostic factors is critical to inform resource allocation and optimize care delivery in low-resource settings.

This study evaluated the survival outcomes and prognostic factors among lung cancer patients seen at a high-volume cancer centre in SSA.

DISCUSSION AND CONCLUSION

Lung cancer survival in this Nigerian cohort was suboptimal, with a median survival of under 15 months.

Access to targeted therapy was a key determinant of improved outcomes, reinforcing the urgent need to expand molecular diagnostics and precision oncology pathways.

System-level investments in diagnostic capacity, treatment access, and integrated care delivery are essential to meaningfully improve lung cancer survival in Nigeria and SSA.

RESULTS

The mean overall survival (OS) was 25.0 ± 2.9 months (95% CI: 19.2–30.9), with a median survival of 13.3 ± 1.9 months (95% CI: 9.7–16.9) and a one-year survival rate of 51.0% among the cohort.

One-year survival did not differ significantly by sex (male: 50.6% v. female: 49.2%), age group (20-39:45.0%; 40-59:49.0%, 60-79:48.6%, >80: 0.0%) or histology (NSCLC - 47.7% and SCLC 33.3%).

Stage-stratified survival rates were 0% (Stage I), 60.0% (Stage II), 61.5% (Stage III), and 48.9% (Stage IV), not accounting for confounders such as access to surgical intervention or therapies.

Comparing patients who received and did not receive conventional chemotherapy, targeted therapy, and immunotherapy, 1-year survival rates were 54.0% v. 40.7%; 70.1% v. 42.2%; and 83.3% v. 48.8%, respectively.

Factors found to be significant to survival included targeted therapy (OS 34.7 ± 5.2 months v. 18.7 ± 2.2 months, $p=0.004$); laterality (OS left: 35.4 ± 4.3 months v. right: 16.9 ± 2.8 months, $p=0.045$).

METHODS

We conducted a retrospective cohort study of lung cancer patients seen at Medserve-LUTH Cancer Centre, Lagos, Nigeria, between June 2020 and June 2025.

191 electronic records were reviewed, of which 171 patients with complete data were included in this analysis. Survival outcomes were estimated using the Kaplan-Meier method.

REFERENCES & ACKNOWLEDGEMENTS

Daniels J, Kyei KA, Israel N. Management and survival outcomes of patients with lung cancer at a leading radiotherapy centre in Sub-Saharan Africa: a cross-sectional study. *ecancermedicalsecience*. 2025 Jun 11;19:1924.

Obomanu E, Ugwu C, Megiso M, Verinumbe T, Jones C, Vanderpuye V, Hammad N. Targeting Inequities: Addressing Lung Cancer Care Challenges in Africa Through Drug Access, Radiotherapy, and Surgical Innovations. *JCO Global Oncology*. 2026 Jun;12:e2500692.

Okonta KE, Echieh PC, Abubakar U, Baiyewu LA, Nzewi OC. Management of lung cancer in Africa: Underdiagnosis and poor access to treatment—A close look at Nigeria and West African Sub-region. *Journal of the Pan African Thoracic Society*. 2021;2(3):122-9.

Molla G, Bitew M. The future of cancer diagnosis and treatment: unlocking the power of biomarkers and personalized molecular-targeted therapies. *Journal of Molecular Pathology*. 2025 Aug 28;6(3):20.

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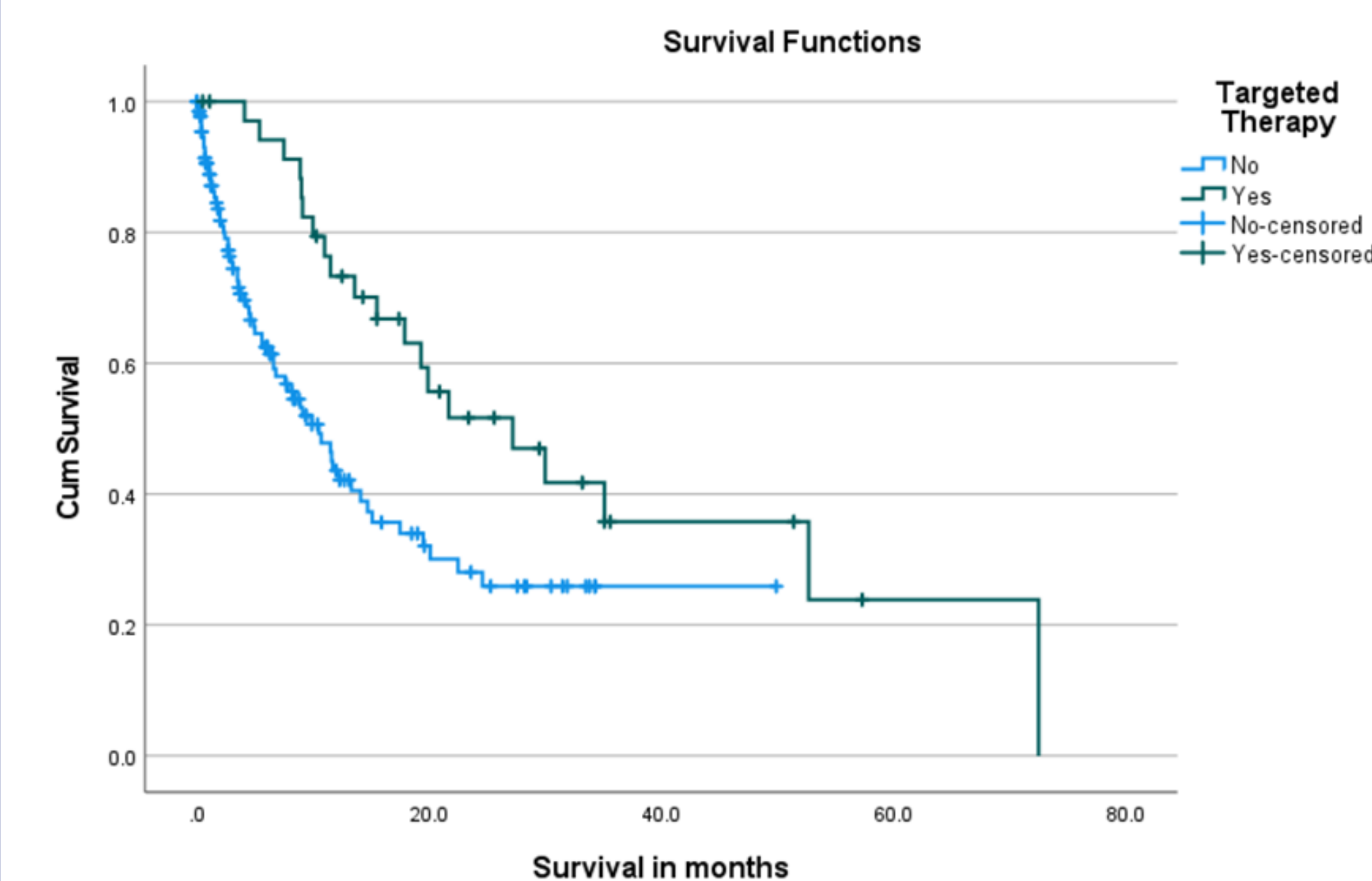


Figure 1: Target therapy

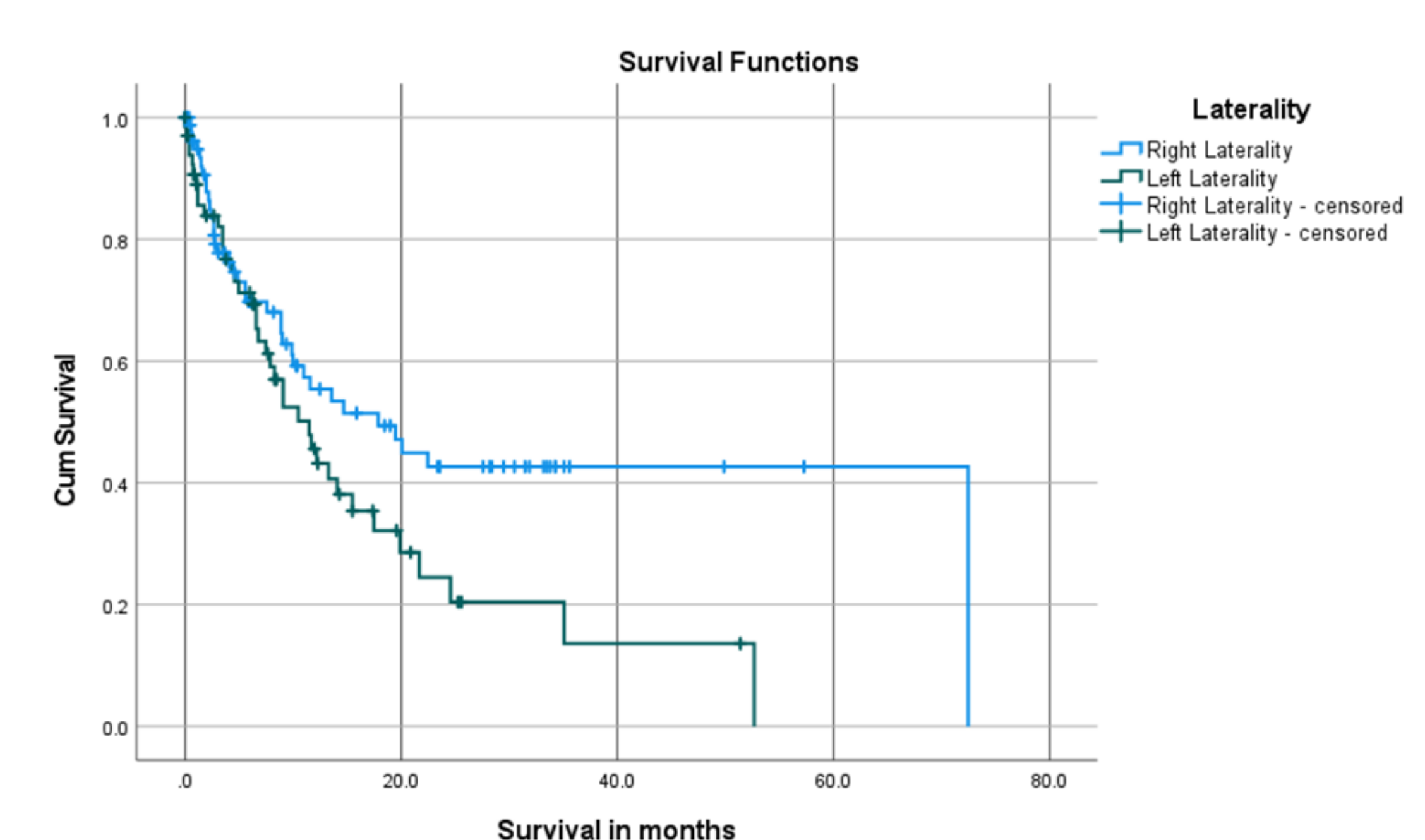


Figure 2: Laterality