

BACKGROUND

Urothelial carcinoma is the sixth most common cancer in the United States. With the expansion of biomarker-driven therapies, molecular testing has become increasingly relevant to treatment selection.

Real-world patterns of testing, disparities in access, and the relationship between testing and clinical outcomes remain incompletely understood.

STUDY OBJECTIVES

- 01 Assess temporal trends in molecular testing from 2013–2025
- 02 Evaluate differences in testing rates by race and sex
- 03 Compare overall and progression-free survival by testing status

METHODS

Study design and population

Single-center retrospective cohort of 142 patients with metastatic urothelial carcinoma seen between January 2013 and December 2025.

Variables and endpoints

Molecular testing status and timing, race, sex, overall survival (OS), and progression-free survival (PFS).

Statistical analysis

Chi-squared tests for categorical comparisons; log-rank tests for survival analyses.

PATIENT CHARACTERISTICS

FIGURE 1 | Cohort composition

PATIENT RACE DISTRIBUTION

PATIENT GENDER DISTRIBUTION

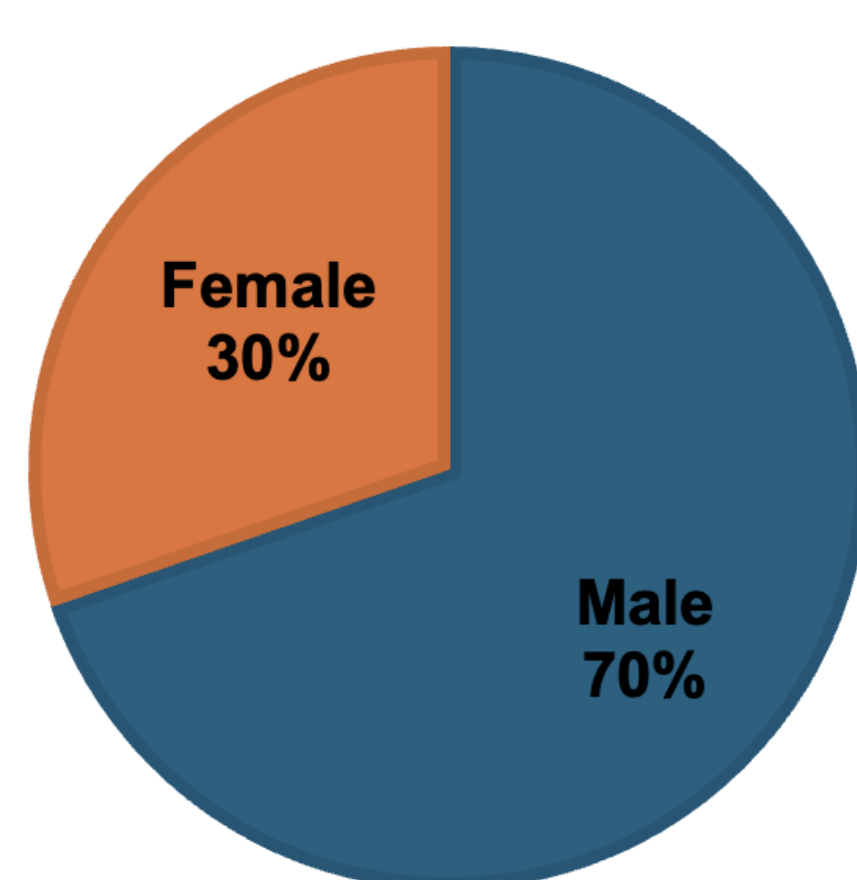
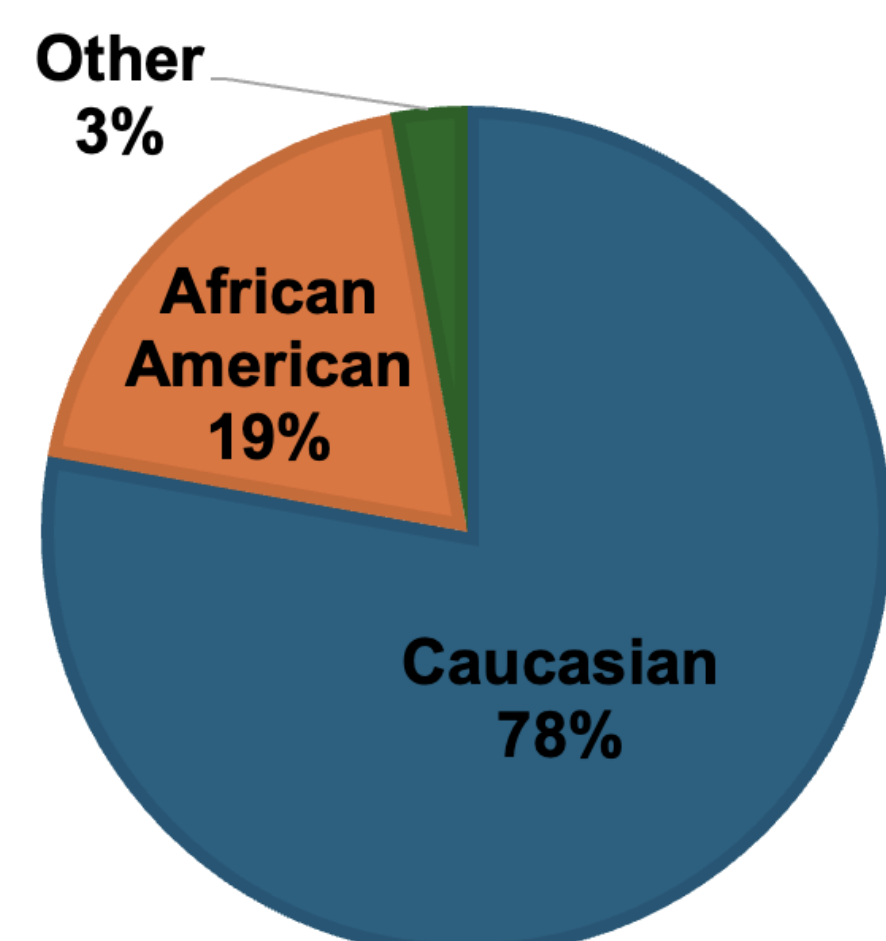
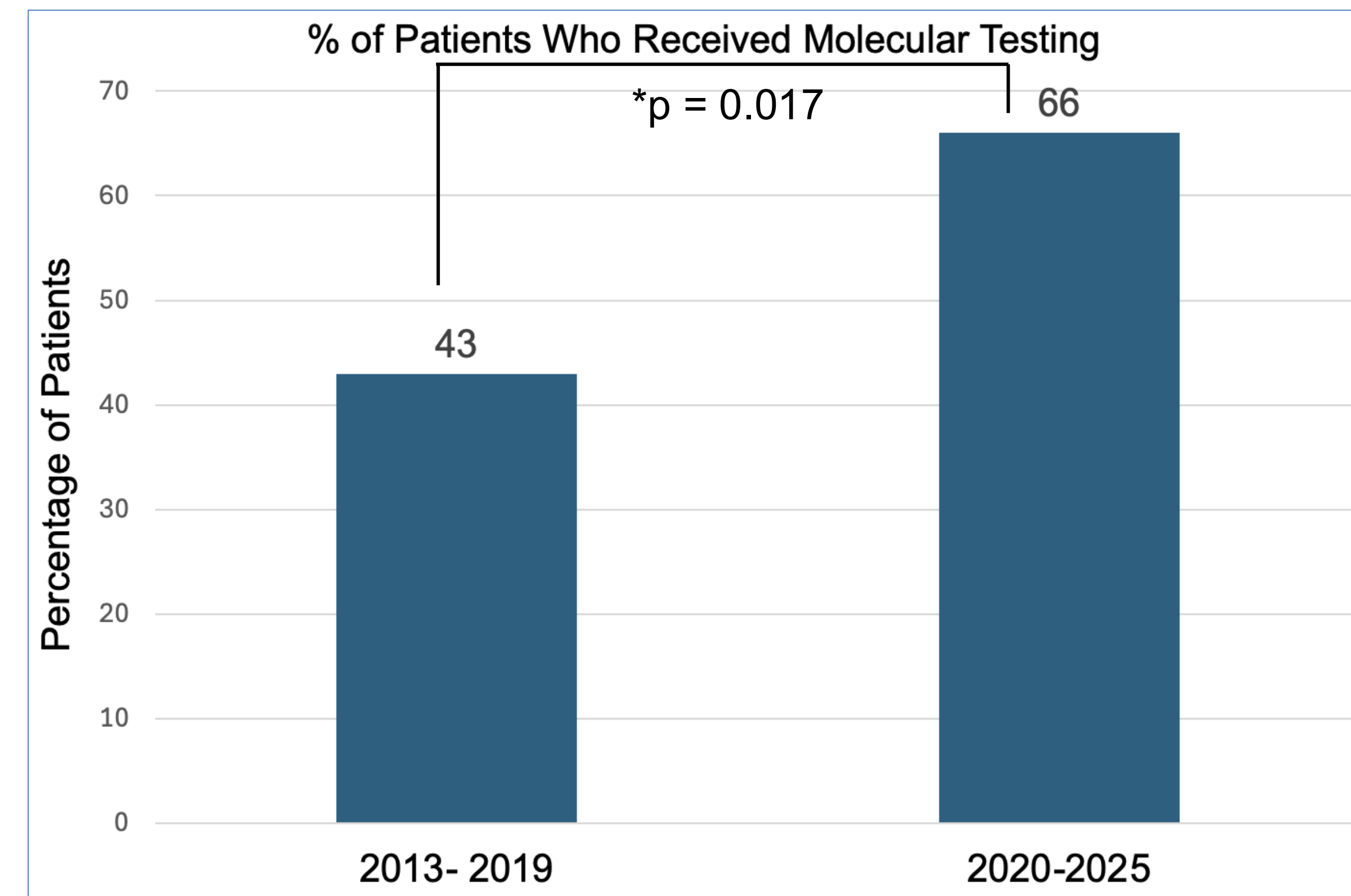


Figure 1. Race and sex distribution in the 142-patient study cohort. Percentages are as reported in the original presentation.

TESTING OVER TIME



Therapy milestones: erdafitinib (2019), trastuzumab deruxtecan (2024)

Figure 2. Proportion receiving molecular testing increased significantly over time.

TESTING BY RACE AND SEX

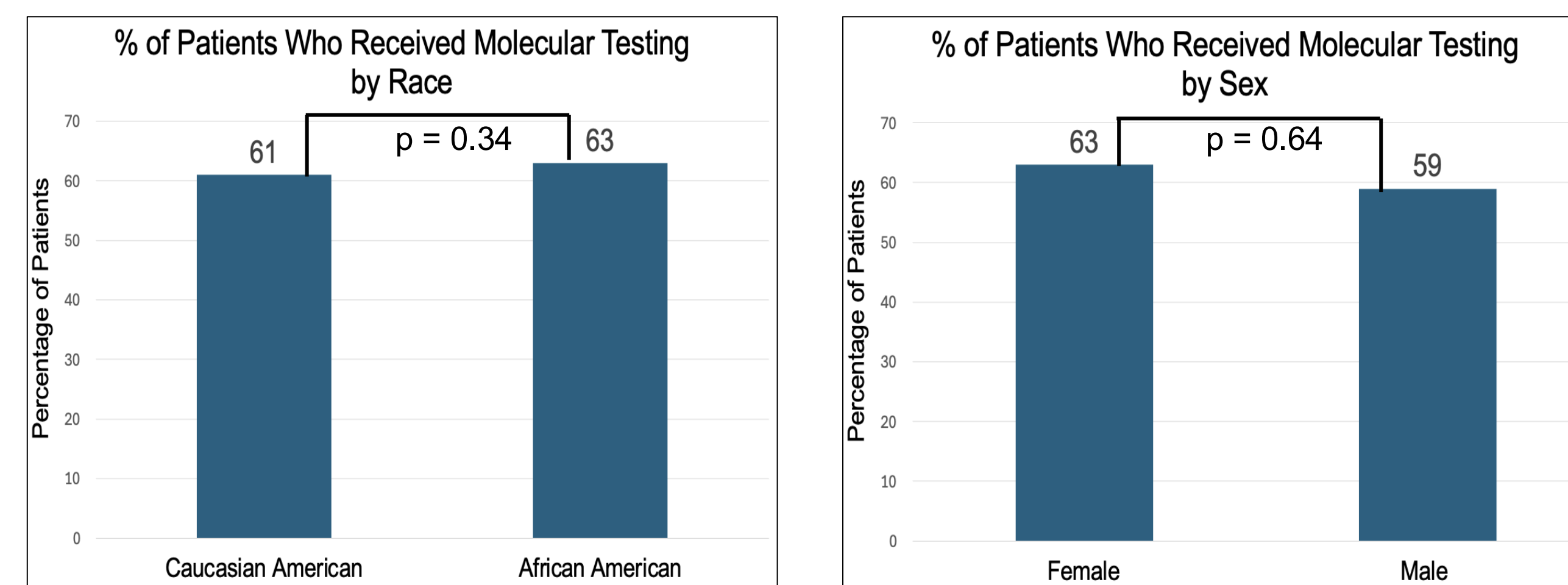


Figure 3. Molecular testing rates by race (A) and sex (B); neither comparison was statistically significant.

TIMING OF TESTING

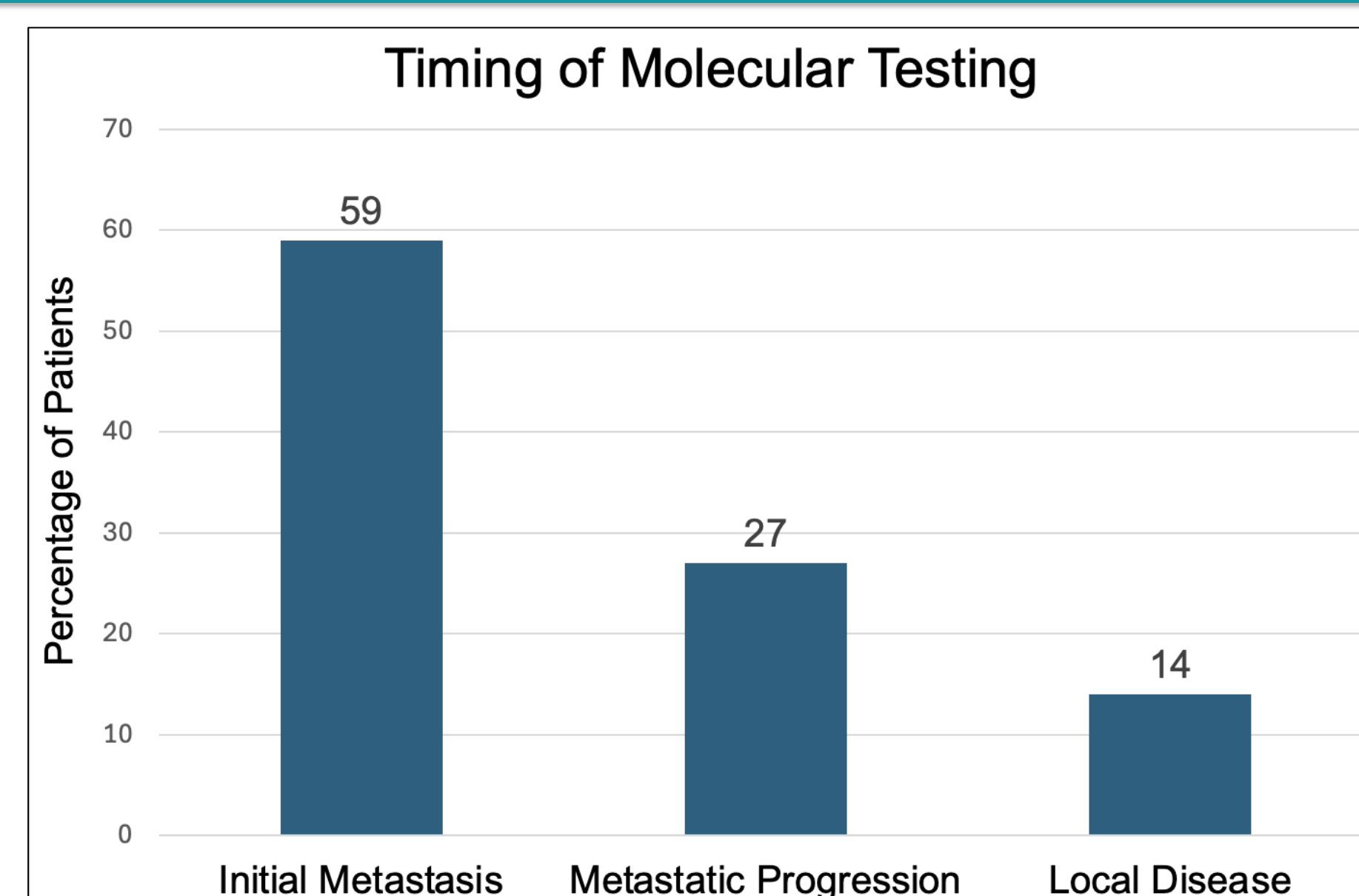


Figure 4. Most tested patients underwent molecular testing at initial metastatic presentation (59%).

Among those not tested, 74% had no documented discussion of testing.

SURVIVAL OUTCOMES

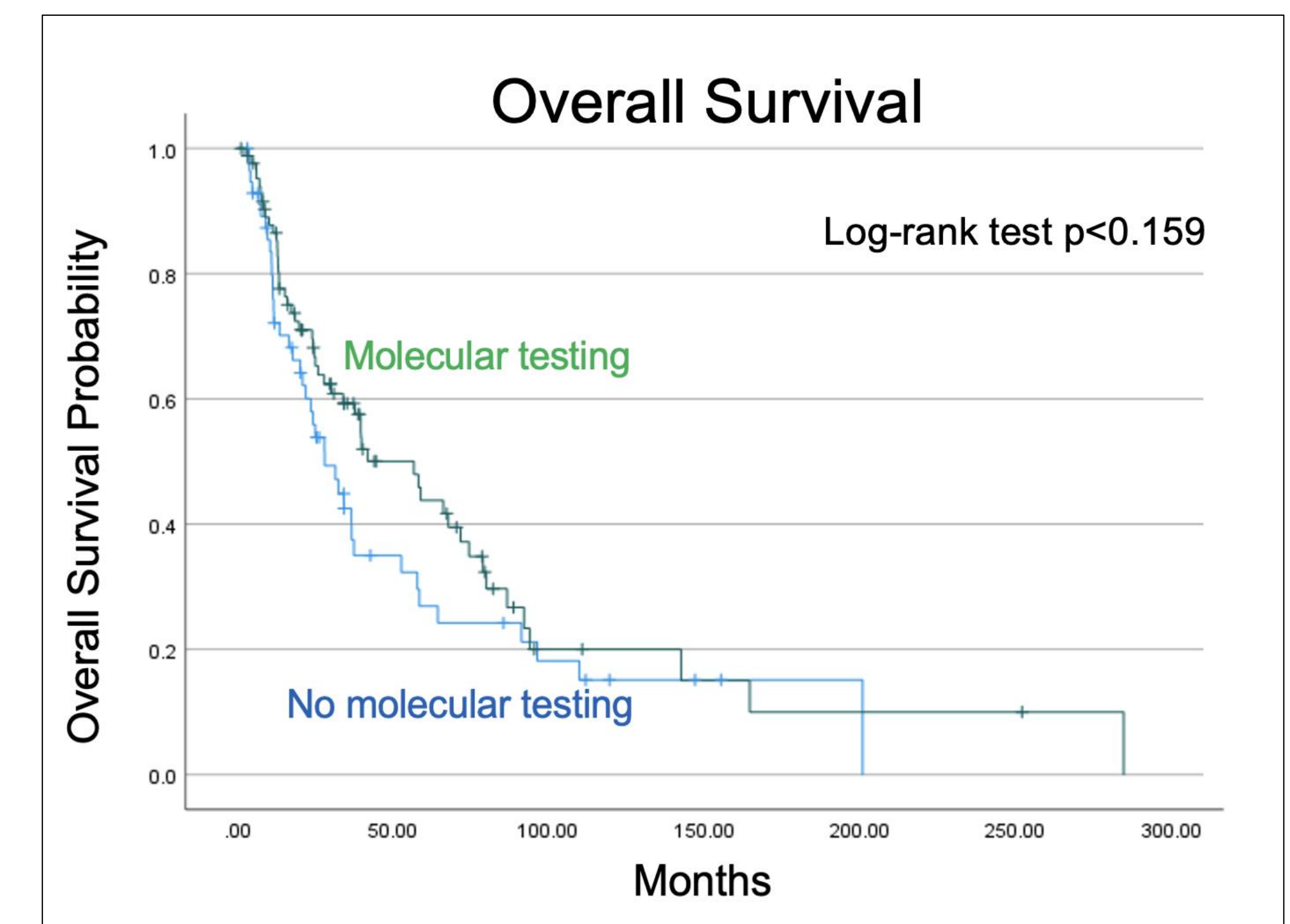


Figure 5. Kaplan–Meier overall survival by molecular testing status; no significant difference was observed.

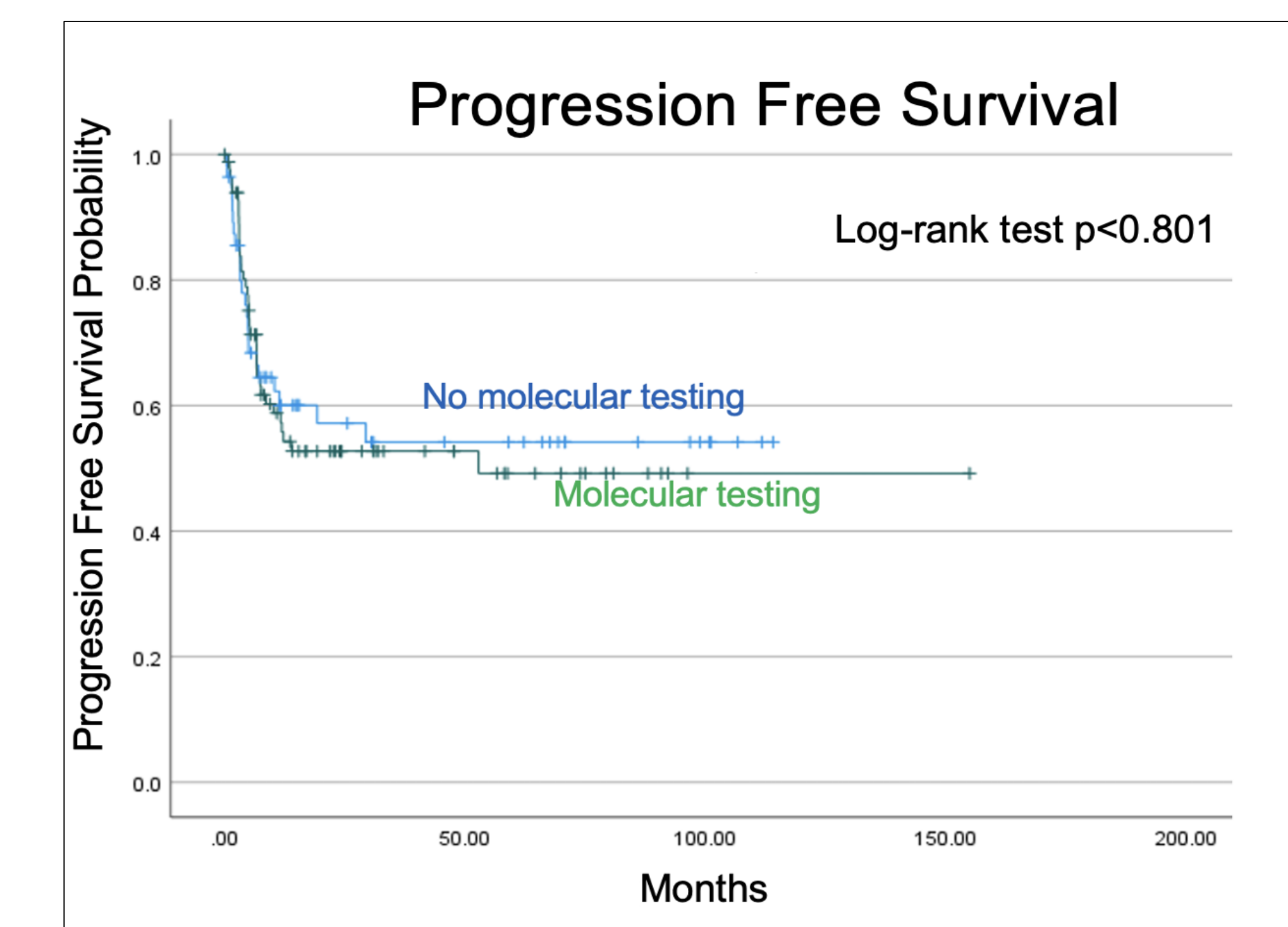


Figure 6. Kaplan–Meier progression-free survival by testing status; no significant difference was observed.

CONCLUSIONS

- Molecular testing increased significantly from 43% to 66% over the study periods
- No significant testing differences were found by race or sex
- No significant OS or PFS differences were observed by testing status
- Approximately one-third of patients remained untested

LIMITATIONS & NEXT STEPS

The sample size limits interpretation. Future work will assess how often patients with actionable alterations receive matched targeted therapies.