

INTRODUCTION

- PLUC is an extremely rare entity, <1% of extranodal lymphomas
- Often mimics epithelial cervical cancer — but standard cytology (e.g., Pap smears) frequently fails to detect it
- Diagnosis typically relies on biopsy and imaging
- Optimal management remains unclear

OBJECTIVE

Systematically review published cases of PLUC to characterize its clinical presentation, diagnosis, management, and outcomes.

METHODS

Literature Search

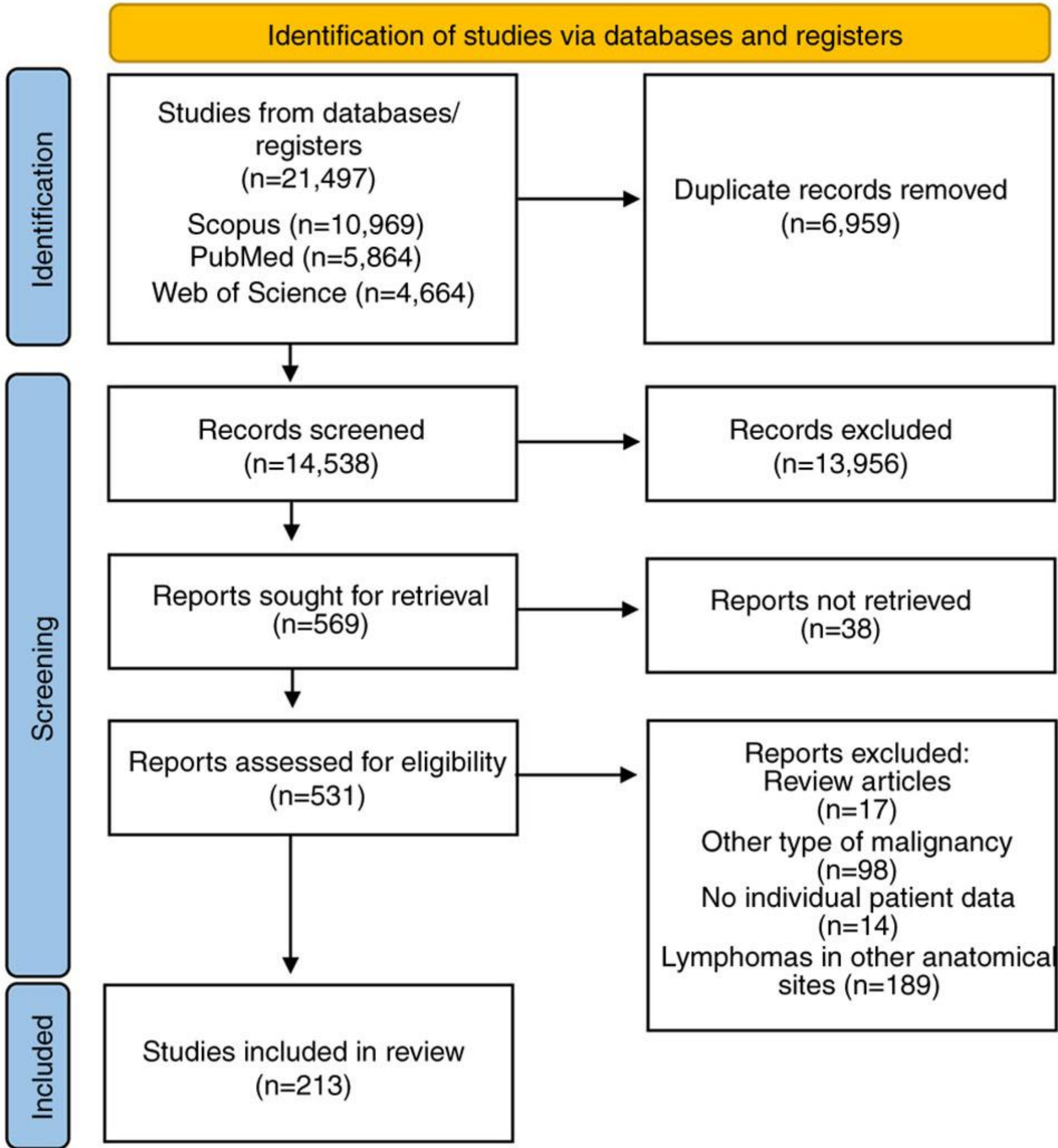


FIGURE 1. Prisma flowchart demonstrating the search strategy for the selection of eligible studies from PubMed, Web of Science, and Scopus

RESULTS



213 reports – 339 patients
Median age 46 (15-88)



Most common symptoms:
Vaginal bleeding (59.4%)
Vaginal discharge (13.8%)
Asymptomatic (13.2%)
B-symptoms (8.8%)



Diagnostic approach:
Biopsy (28.1%)
Ultrasound (21.2%)
Cytology was frequently non-diagnostic
~ 8% incidental diagnoses

Management:

Chemotherapy only (35.3%)
Chemo-radiotherapy (20.1%)
Surgery + adjuvant chemotherapy (17.4%)
Surgery only (10.7%)

Notable shift over time since 1984 from radiotherapy-based approaches to chemotherapy-only regimens - towards systemic, fertility-preserving treatment

Diffuse large B-cell lymphoma - the most common subtype (39%)

Chemotherapy was R-CHOP-based in >50% of DLBCL cases

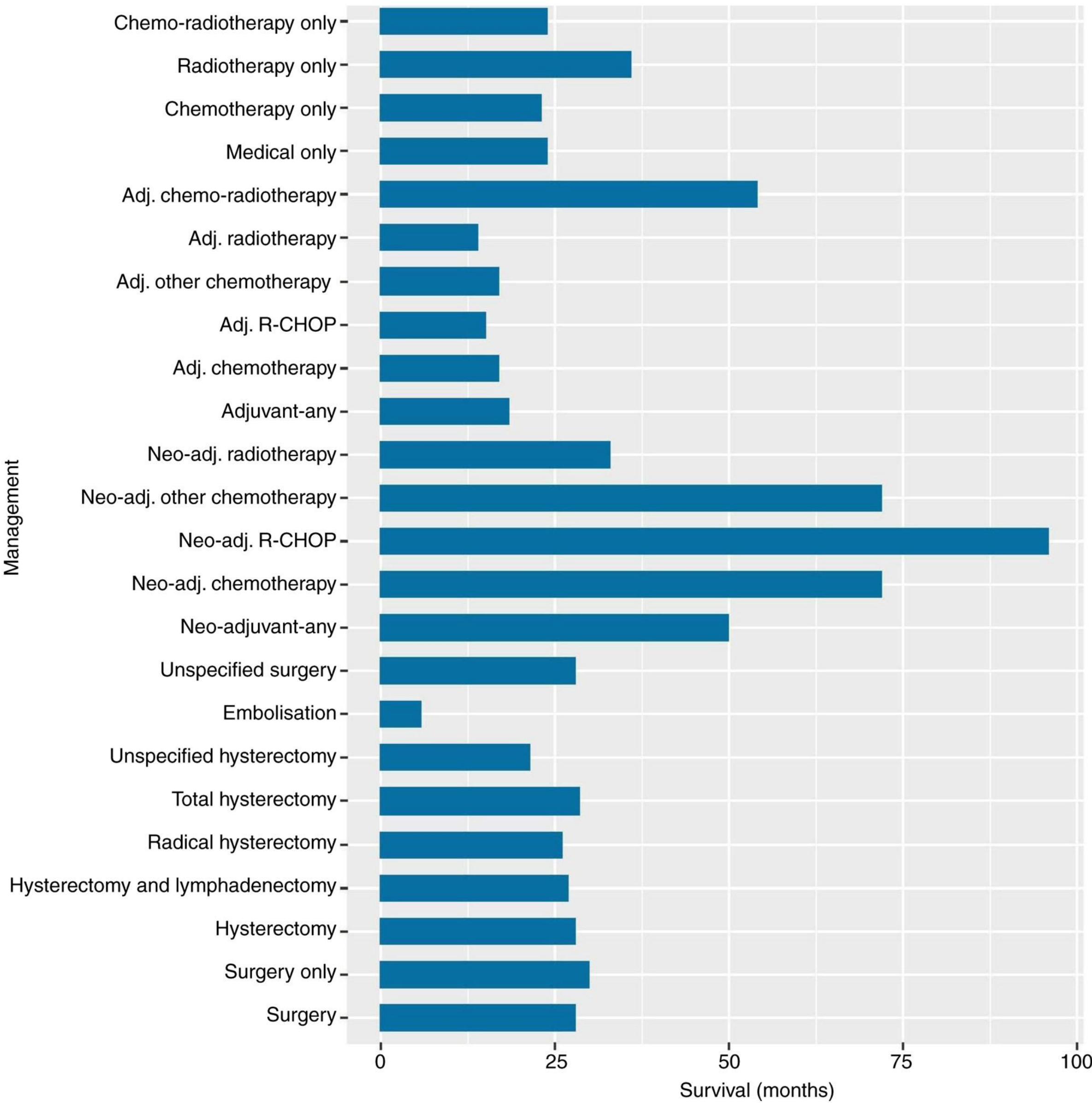


FIGURE 2. Median survival according to therapeutic management type

Survival

5-year OS – 86.1%
10-year OS – 85.4%

Management

Management	Median survival months (range)
Surgery only	28 (2-228)
Medical only	24 (1-246)
Chemo only	23 (3-168)
Radio only	36 (3-240)
Chemorad	24 (1-246)

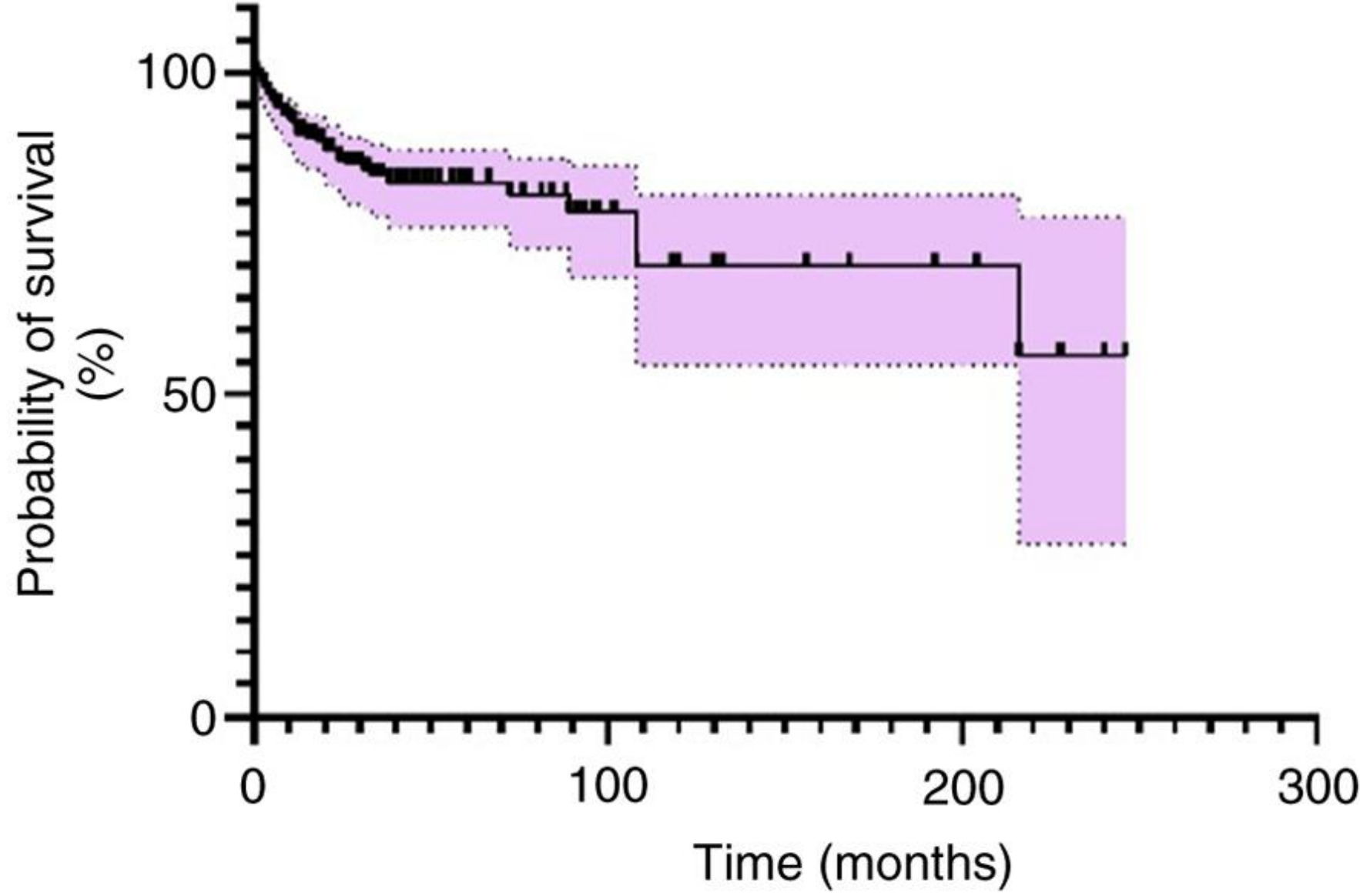
Conclusions

- No survival benefit was observed with surgical treatment, supporting a move toward fertility-preserving, non-surgical management when feasible.
- Neo-adjuvant chemotherapy and surgery appears to be a reasonable consideration to chemotherapy alone when preserving fertility is not a concern for patients with PLUC
- Although primary malignant lymphomas of the uterine cervix are infrequent, early detection, optimal therapeutic management, and multidisciplinary involvement may provide benefits to patients developing the disease.

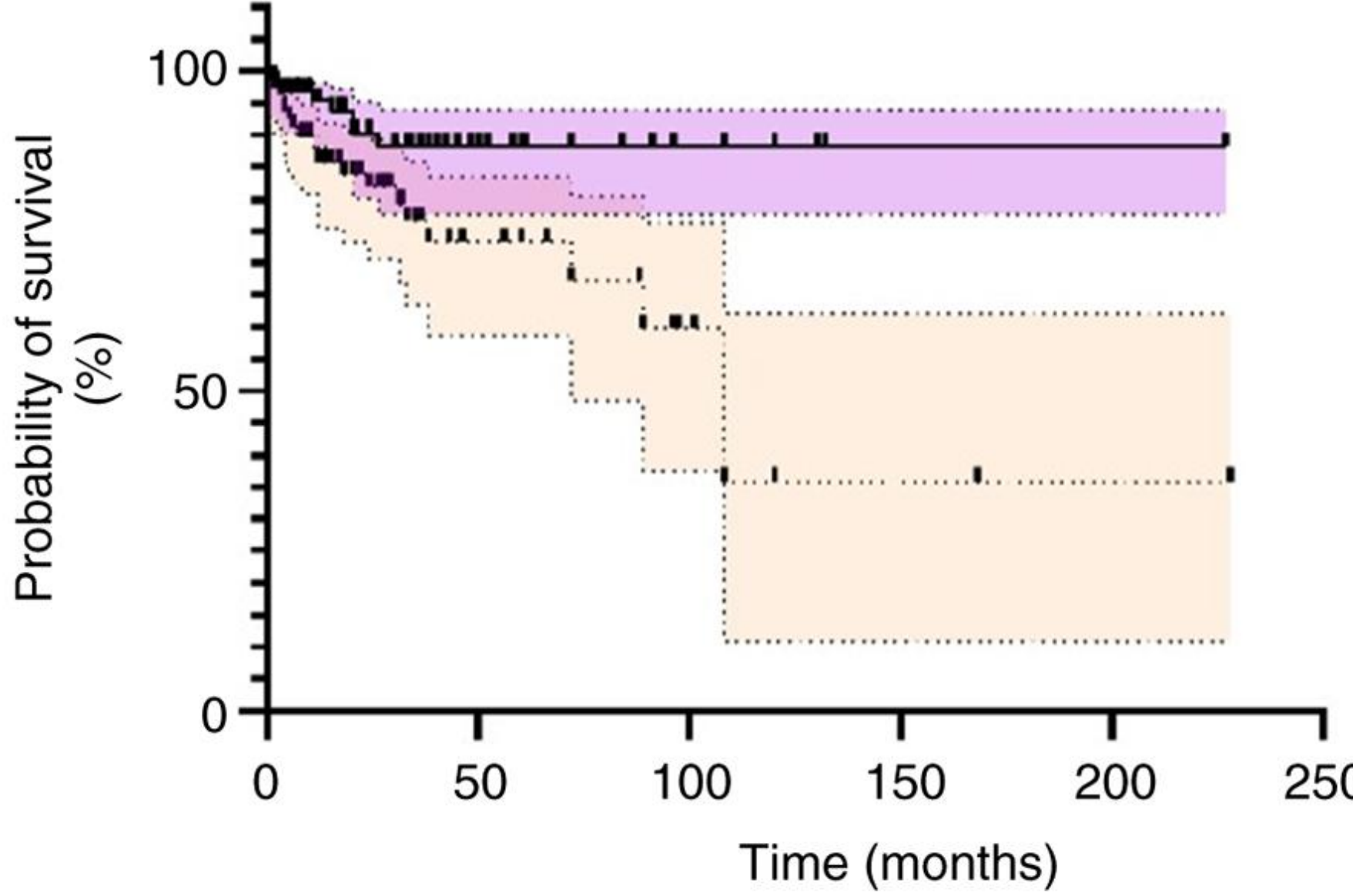
References

Bobotis S, Kechagias KS, Shearer A, Ellis LB, Stephens SM, Bowden SJ, Kalliala I, Kalofonou F, Lyons D, Mitra A, Galani A, Paraskevaidi M, Kyrgiou M. Primary lymphoma of the uterine cervix: A systematic review and integrated analysis of case reports and series. Oncol Lett. 2025 Jan 21;29(3):150. doi: 10.3892/ol.2025.14896. PMID: 39898289; PMCID: PMC11783993.

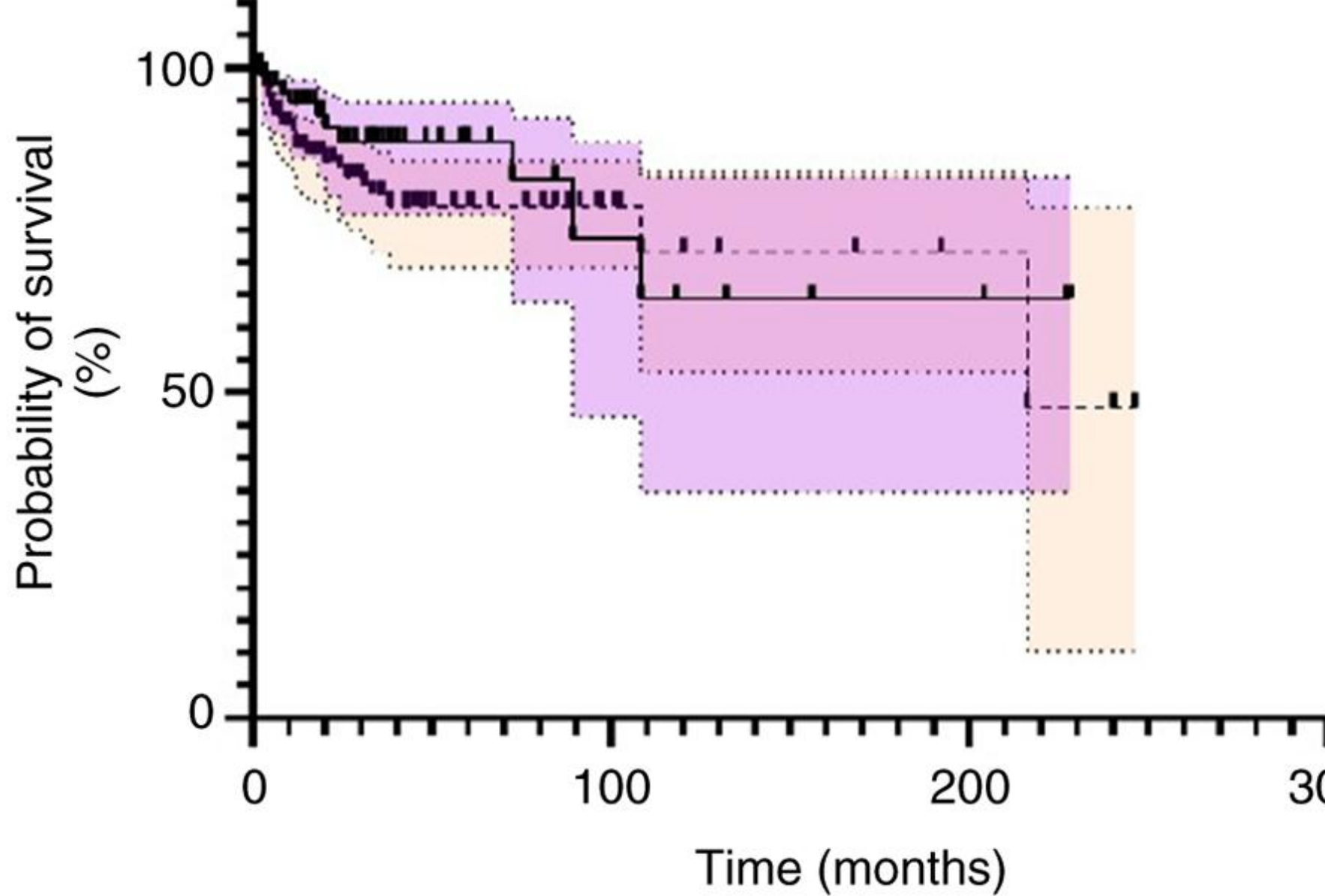
A



B



C



D

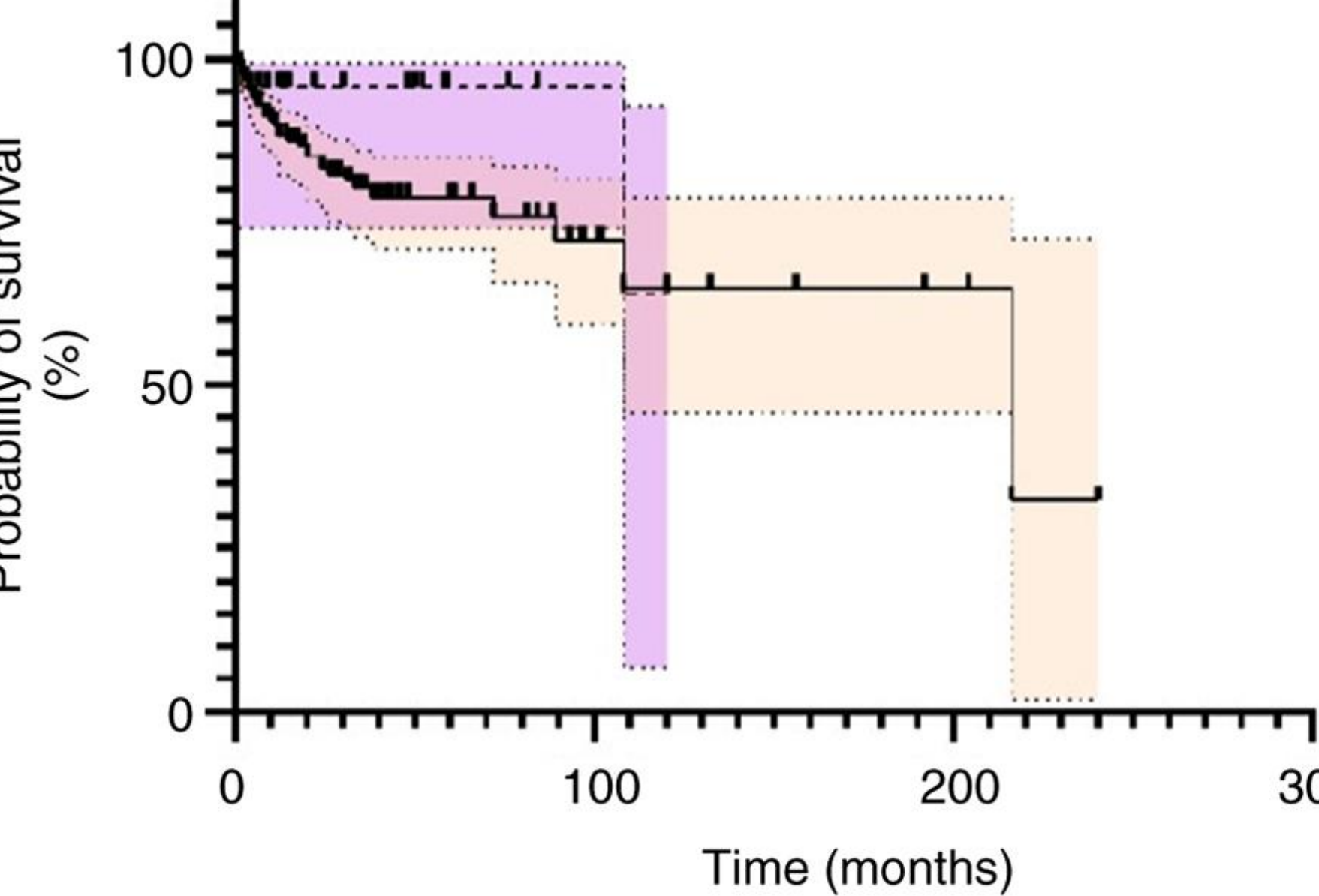


FIGURE 3. Kaplan-Meier curves calculated using the log-rank test and the Gehan-Breslow-Wilcoxon method for overall survival (A) for the total number of patients, and based on (B) menopausal status (premenopausal n=94 vs. postmenopausal n=80)(p-value<0.001), (C) management type (operative n=78 vs. non-operative n=139)(p-value = 0.29) and (D) presence of symptoms (symptomatic n=187 vs. asymptomatic n=24)(p-value=0.24). For all comparisons, the first group is illustrated in purple whereas the second group in beige.

