SECOND PRIMARY MALIGNANCIES AFTER MANTLE CELL LYMPHOMA: A POPULATION-BASED SEER ANALYSIS OF CANCER-SPECIFIC AND LONG-TERM RISK

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INTRODUCTION:

Mantle cell lymphoma is an uncommon and clinically aggressive non-Hodgkin lymphoma subtype. Improvements in treatment outcomes have increased the importance of long-term survivorship complications, including second primary malignancies. Given the use of intensive therapies in many patients with mantle cell lymphoma, defining the burden and distribution of second cancers is clinically important.

METHOD:

We conducted a retrospective population-based cohort study using SEER 17-registry data from 2000 to 2022. Adults aged ≥18 years with microscopically confirmed first primary mantle cell lymphoma were included. Patients were required to survive at least 2 months after diagnosis before entering the at-risk period. Second primary malignancies were defined according to SEER multiple-primary rules. Standardized incidence ratios and 95% confidence intervals were calculated by comparing observed malignancies with expected general population cancer rates matched by age, sex, race, and calendar year.

CONCLUSION:

Mantle cell lymphoma survivors have a significantly increased risk of second primary malignancies, particularly acute myeloid leukemia, thyroid cancer, skin cancers, kidney cancer, and respiratory malignancies. The persistence of excess risk beyond 10 years supports prolonged, risk-adapted follow-up in this population.

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RESULTS

Mantle cell lymphoma survivors developed 1,455 second primary malignancies compared with 1,024.86 expected cases, corresponding to an overall SIR of 1.42. Solid tumor risk was elevated, with an SIR of 1.24.