A SEER STUDY ON INCIDENCE AND SURVIVAL TRENDS IN MANTLE CELL LYMPHOMA INVOLVING TONSILS

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Introduction



- Mantle cell lymphoma (MCL) is an aggressive subtype of non-Hodgkin lymphoma, with disseminated lymphadenopathy being the primary presentation.
- Extranodal involvement occurs in 25% of patients, but primary tonsillar MCL is extremely rare, and population-level data are limited.
- Pathology shows monomorphic proliferation of small to intermediate sized B cells with overexpression of cyclin D1 or SOX11 and it is often associated with t(11;14)(q13;q32) or IGH/CCND1 and cyclin D1 overexpression.

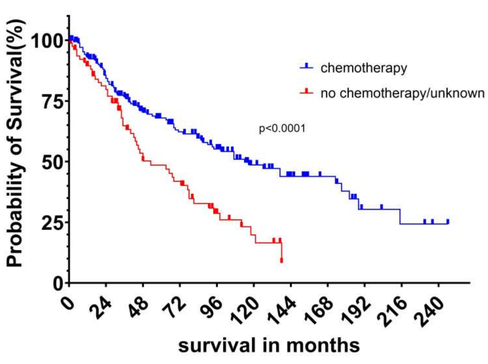
Aim

We aimed to assess national trends in incidence and survival outcomes of tonsillar MCL in the U.S. from 2000 to 2021.

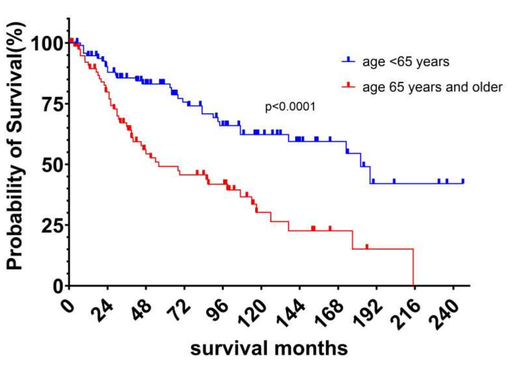
Methods

- Retrospective cohort study using the SEER (Surveillance, Epidemiology, and End Results) was done.
- Adults aged ≥18 years diagnosed with MCL (ICD 9673/3) and tonsil as primary site (C09.9) from 2000–2021 were included.
- Incidence was calculated using SEER*Stat.
- Survival analyses were performed using GraphPad Prism.

KM curves comparing OS in different treatment groups



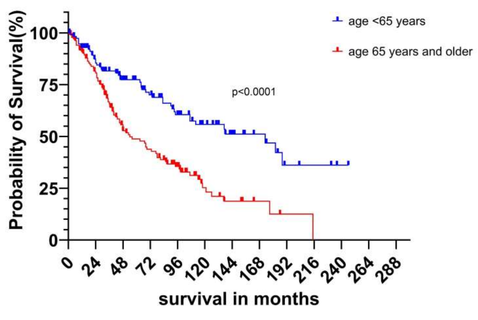
KM curves comparing OS in different age groups that recieved chemotherapoy



Results

- Of 257 patients, 81% were male, and 55% were aged ≥65.
- Incidence was 4.5 times higher in males (p<0.0001) and significantly higher in those ≥65 (0.0603 vs. 0.0061).
- Median OS was **90 months**.
- **Cancer-specific survival at 1, 3, 5, and 10 years was 94%, 80%, 69%, and 52%, respectively**.
- Patients <65 had longer OS (**173 vs. 54 months**, HR 0.44, 95% CI 0.31–0.63, p<0.0001).
- Chemotherapy improved OS (**114 vs. 53 months**, p<0.0001).
- Among those who received chemotherapy, mOS was **182 months in younger vs. 56 months in older adults** (HR 2.57, 95% CI 1.62–4.06; p<0.0001).
- Most were diagnosed at early stages (33% stage I, 30% stage II), with fewer at stage III (10%) or IV (26%). Stage IV mOS was 72 months.
- No significant survival differences were noted by sex, stage, or diagnosis year.

KM curves comparing OS in different age groups

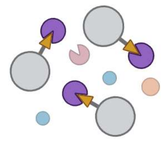


Summary

Tonsillar MCL is more common in older adults and males. Median survival of 7.5 years with a ~70% 5-year CSS rate is comparable to published data. Older adults experience worse outcomes despite chemotherapy.

Discussion

- The impact of less toxic, non-chemotherapy targeted therapies on survival should be assessed to determine whether age-related differences persist.



- Future studies integrating clinically relevant genetic alterations (e.g., TP53, Ki-67) into registries may improve understanding of factors influencing outcomes in rare MCL presentations.

*Images created in https://BioRender.com