Sex-Based Disparities in Receipt of Care and Survival in Malignant Pleural Mesothelioma

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BACKGROUND / OBJECTIVES

Females account for a minority of malignant pleural mesothelioma (MPM) diagnoses but may experience differential survival relative to males. Limited data to date if there are sex-based differences in receipt of treatment and subsequent disease-control outcomes in MPM.

MATERIAL & METHODS

We performed an NCDB analysis. Multivariable Cox proportional hazards model with propensity score-matching to assess association between female sex and overall survival. Multivariable logistic regression for patterns-of-care assessment.

RESULTS

18,799 patients identified
- 78% male, 22% female
- Median age 74 years
- Median follow-up 59.9 months

Females statistically more likely to present at younger age, with fewer comorbidities, and with epithelioid histology

Despite this, women less likely to receive any treatment, surgery, chemo, or multimodal therapy (all \( p \leq 0.001 \)) vs. men.

Female 1-year OS 45.3%, 2-year OS 25.7%
Male 1-year OS 38.4%, 2-year OS 16.3%

On MVA, female sex associated with improved OS (HR 0.83, 95% CI 0.80-0.86, \( p \leq 0.001 \))

Sex-based survival differences seen across all stages, but only in epithelioid (\( p \leq 0.001 \)), not biphasic (\( p=0.17 \)) or sarcomatoid (\( p=1.00 \)) histology.

SUMMARY / CONCLUSION

- Surgery and chemotherapy are disproportionately underutilized in females with MPM.
- Despite this concerning disparity, female sex is associated with improved survival relative to males.