Treatment Related Factors and Survival Determinants in Pleomorphic Xanthoastrocytoma

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INTRODUCTION

- Rare WHO grade 2-3 astrocytic tumor
- Predominantly affect children and young adults
- About two-thirds harbor BRAF V600E mutation
- Formal guidelines for multimodal management of PXA is lacking

AIM

We evaluated the prognostics drivers of survival association of definitive therapy with outcomes

METHOD

- SEER data from 2000 to 2022
- 928 cased met inclusion criteria
- Survival analyses were performed in STATA v18 using kaplan-Meier curves and log-rank tests were used
- Univariable and multivariable Cox proportional-hazards model were performed.
- One-way ANOVA test was performed

RESULTS

- Median OS was 52 months
- Surgical resection was found as an independent favorable factor (adjusted HR=0.58; 95% CI=0.41-0.82; p=0.002)
- Older age is an independent negative factor (adjusted HR per 10 yr =1.29; 95%CI=1.12-1.48; p<0.001)
- Radiation (p=0.12) and systemic (p=0.44) therapy were not associated with the OS

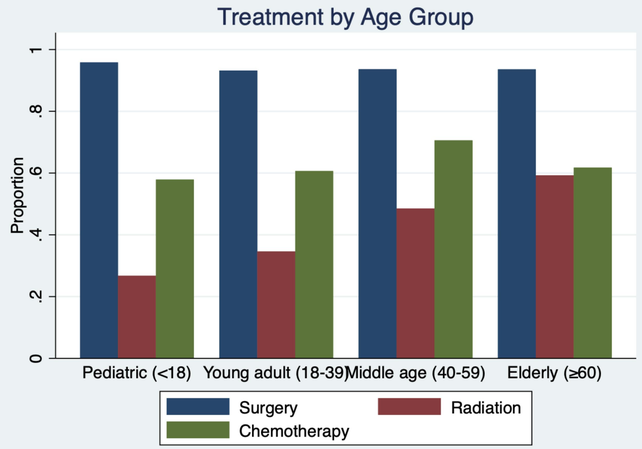


Figure 1. Treatment by age group.

CONCLUSIONS

- **Surgical resection is an independent predictor of prolonged survival in PXA, whereas older age is associated with poorer outcomes**
- We recommend prospective guideline driven studies to define optimal multimodality treatment strategies for this rare tumor.

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