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Diffuse intrinsic pontine gliomas: First registry effort in Mexico

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Abstract

Introduction: Brainstem tumors comprise 10.9% of all brain tumors, and pediatric diffuse intrinsic pontine gliomas (DIPG) have a fatal prognosis. Some countries have developed national and international register databases to characterize their populations to aid clinical and public policy decisions. This study provides information regarding the clinical characteristics of a retrospective cohort of children with DIPG in México from 2001 to 2021, and assesses the proposed prognostic factors previously described for survival outcome.

Methods: Health institutions from Mexico were invited to contribute to a retrospective electronic registry of patients with DIPG based on the International DIPG Registry. Fisher's exact test was used to compare long- and short-term survivors. Overall survival was estimated using the Kaplan-Meier method. Differences between survival curves were evaluated using the log-rank test and Cox proportional hazard regression analysis.

Results: Total 110 patients were included. The median age of the patients at diagnosis was 7 years. Sixty patients (54.5%) presented with symptoms in less than 6 months; the most frequent symptom was ataxia (56.4%). Ninety patients received treatment (81.8%), the overall survival at 4 years was 11.4%, and 16 patients (14.5%) were admitted for palliative end-of-life care. We found no significant survival differences for any of the prognostic factors.

Conclusion: This study highlights the need to develop strategies to standardize healthcare processes and enhance the quality of care to improve clinical diagnosis in Mexico. We also observed a barrier to the acceptance of palliative end-of-life care in the family and medical teams.

Keywords: DIPG; cancer; palliative end-of-life care; pediatrics; survival.