

Glioblastoma multiforme in children: experience at Hospital Infantil de Mexico Federico Gomez

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Abstract

Objective To evaluate clinical evolution of pediatric patients diagnosed with glioblastoma multiforme (GBM) at Hospital Infantil de México Federico Gómez.

Methods Cases of patients treated from January to May, 2007, were included in this study. Variables analyzed were: age, diagnosis, size of tumor, histopathological description, degree of resection, time of stay in hospital, complications and outcome using Pearson's chi-squared test and logistic regression.

Conclusion Sixteen patients were identified. Mean age of presentation was 8.8. An increased frequency of complications was observed in younger patients and longer survival rates in patients with greater resections; main mode of presentation was directly related to intracranial hypertension; size of tumor was not related to evolution or outcome.

Modern histological classifications especially designed for children are deemed necessary to accurately diagnose GBM.

Keywords Glioblastoma multiforme ·
Childhood brain tumors

Introduction

In 36 years, 810 patients with tumors of the central nervous system have been operated at Hospital Infantil de México Federico Gómez (HIMFG) in Mexico City. Of these, the great majority, as published by Chico et al. [1], were astrocytomas of different grades, followed by medulloblastomas, craniopharyngiomas, ependymomas, germinomas, meningiomas and other types of tumors. The epidemiology of pediatric brain tumors in Mexico is similar to that found in other countries [16, 27].

At present, little is known about the origin of brain tumors of childhood. In this regard, a pediatric patient must be handled from the beginning with the intention of achieving complete cure, since research in this area shows an increasing survival rate among such patients [2, 12, 13, 20, 26].

In the last 10 years, a total of 348 patients with brain tumors have been seen at HIMFG, with a distribution very similar to the one shown above for the 36-year period, and in which astrocytomas predominate [1]. Twenty-five cases of glioblastoma multiforme (GBM), found among 156 astrocytic and mixed gliomas, were surgically treated at HIMFG. This figure corresponds to 16% of total astrocytomas and to 7% of 348 total brain tumors, in the same

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