

Research Paper:



Three Years Survival Rate in All Kinds of Glioma Tumors in One Institution, Iran, 2001-2010

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Citation: Rezaee M, Aminmansour B. Three Years Survival Rate in All Kinds of Glioma Tumors in One Institution, Iran, 2001-2010. Iran J Neurosurgery. 2020; 6(2):XXX.

ABSTRACT

Article info:

Received: xx

Accepted: xx

Available Online: xx

Keywords:

Three years survival rate,
High-grade glioma, Low-
grade glioma, Iran

Background & Aim: Survival rate of brain tumors has not been reported in Iran. The purpose of this study, given the lack of such information, has set to evaluate 3 years survival rate in patients with all kinds of glioma tumors who had been diagnosed clinically with one type of glioma tumor and then admitted in one of the university hospital of Isfahan, Iran over period of 2001-2010.

Methods & Materials/Patients: This study was descriptive and retrospective, including 222 patients who had been admitted. All patients (for minors, their parents) were contacted and explained whole structure of the study and its objectives and consented (according to regulations of the Ethics committee and declaration of Helsinki) if they desired to participate in the study; also, they were asked about 3 years survival rate following their tumor resection surgery. Data such as patient age at time of admission, gender, histological diagnosis of tumor and treatment regimen (surgical/non-surgical, radiation, chemotherapy) were collected from patients' medical record. Three years survival rate and frequency of each tumor based upon age and gender, were measured. Patients with Diffuse Astrocytoma, Low-grade Oligodendroglioma, Low-grade Ependymoma and Pilocytic Astrocytoma had been treated with surgery and radiation. Patients with Glioblastoma Multiform (GBM) and Anaplastic Astrocytoma had been treated with surgery and chemo-radiation.

Results: Three years survival rate in this study for GBM and Anaplastic Astrocytoma was 8.7% and 0% respectively following surgery and chemo-radiation. These tumors were categorized as high-grade glioma with poor prognosis. On the other hand, 3 years survival rate for Diffuse Astrocytoma, Low-grade Oligodendroglioma, Low-grade Ependymoma and Pilocytic Astrocytoma following surgery and radiation, was 100%, 95.2%, 100% and 100% respectively. These tumors were considered as low-grade glioma which had good prognosis.

Conclusion: In this study, 3 years survival rate in patients with low-grade glioma following surgery and radiation was almost 100%. In contrast, 3 years survival rate in patients with high-grade glioma following surgery plus chem-radiation was almost 0%.

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