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## Original Paper

## Epidemiology of Gliomas in Israel: A Nationwide Study

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## Key Words

- Glioma, incidence rates
- Descriptive epidemiology, Israel



## Abstract

**Background:** Glial brain tumors span a wide range of neoplasms with distinct clinical and histopathological features. This report presents the descriptive epidemiology of glial tumors by histological subtype and tumor behavior. **Methods:** The study population included all incident cases of glial tumors diagnosed in Israel during March 2001 to July 2003. Age-standardized incidence rates (ASR) were calculated using the world population as a standard. **Results:** A total of 548 tumors were diagnosed, of which 520 had histological confirmation. The ASR of all adult (>20 years) glial tumors was 5.82/100,000 (7.11 for males; 4.75 for females,  $p < 0.001$ ). The majority of tumors (78%) were classified as high grade; astrocytic tumors were the most frequent (85%), with glioblastoma multiforme accounting for 70% of them. A significant positive association was shown between age at diagnosis and grade. The highest ASR was seen for Europe- and American-born, followed by Israeli, Asian and African-born individuals (6.78, 5.86, 4.94 and 3.84/100,000, respectively). **Conclusions:** In general, these results describing data of incident cases of pathologically validated glial tumors are consistent with previous reports. To enhance our understanding of these diseases, epidemiological studies should rely on well-defined histological tumor types, incorporating comprehensive information which will allow comparability between different groups of patients.

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