



A service of the [U.S. National Library of Medicine](#)
and the [National Institutes of Health](#)

Select **19061350**

1: [J Neurosurg.](#) 2009 Apr;110(4):725-9.



Incidence patterns for ependymoma: a surveillance, epidemiology, and end results study.

[McGuire CS](#), [Sainani KL](#), [Fisher PG](#).

Department of Neurology, Stanford University, Palo Alto, California, USA.

OBJECT: Previous small studies disagree about which clinical risk factors influence ependymoma incidence. The authors analyzed a large, population-based cancer registry to examine the relationship of incidence to patient age, sex, race, and tumor location, and to determine incidence trends over the past 3 decades. **METHODS:** Data were obtained from the Surveillance, Epidemiology, and End Results (SEER-9) study, which was conducted from 1973 to 2003. Histological codes were used to define ependymomas. Age-adjusted incidence rates were compared by confidence intervals in the SEER*Stat 6.2 program. Multiplicative Poisson regression and Joinpoint analysis were used to determine annual percentage change and to look for sharp changes in incidence, respectively. **RESULTS:** From the SEER database, 1402 patients were identified. The incidence rate per 100,000 person-years was significantly higher in male than in female patients (males 0.227 +/- 0.029, females 0.166 +/- 0.03). For children, the age at diagnosis differed significantly by tumor location, with the mean age for patients with infratentorial tumors calculated as 5 +/- 0.4 years; for supratentorial tumors it was 7.77 +/- 0.6 years, and for spinal lesions it was 12.16 +/- 0.8 years. (Values are expressed as the mean +/- standard error [SE].) Adults showed no difference in the mean age of incidence by location, although most tumors in this age group were spinal. Between 1973 and 2003, the incidence increased significantly among adults but not among children, and there were no sharp changes at any single year, both before and after age adjustment. **CONCLUSIONS:** Males have a higher incidence of ependymoma than do females. A biological explanation remains elusive. Ependymoma occurs within the CNS at distinct locations at different ages, consistent with hypotheses postulating distinct populations of radial glial stem cells within the CNS. Ependymoma incidence appears to have increased over the past 3 decades, but only in adults.

PMID: 19061350 [PubMed - indexed for MEDLINE]
