



Glioblastomas in the Greater Bay Area, 1991-2005

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Glioblastomas comprise 23% of primary brain tumors in the United States (IRSA). In 2005, glioblastomas accounted for 205 new diagnoses in the Greater Bay Area, less than 1% of all invasive cancers. Males and adults aged 45-74 are more frequently diagnosed than females and younger adults or children (IRSA). The only known risk factor for glioblastoma is ionizing radiation, although many environmental and genetic factors continue to be studied (ABTA). Glioblastomas are difficult to treat because typically they contain more than one cell type. While one cell type may die off in response to a particular treatment, the other cell types may continue to multiply (IRSA).

INCIDENCE TRENDS

In the Greater Bay Area, the incidence rate of glioblastoma increased slightly between 1991 and 2005 for males and remained relatively stable for females (Figure 1).

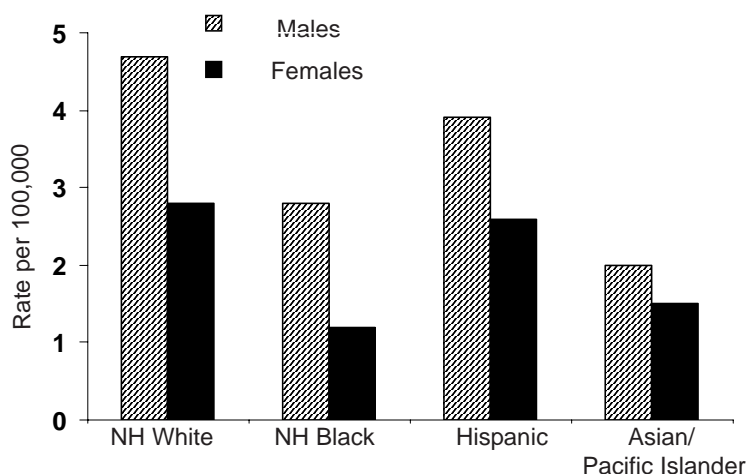
Figure 1. Age-adjusted incidence rates of glioblastomas by year of diagnosis, Greater Bay Area, 1991-2005



RACIAL/ETHNIC PATTERNS

From 2001-2005, the incidence rates for glioblastoma in the Greater Bay Area were highest among non-Hispanic (NH) white men and lowest among non-Hispanic black women (Figure 2). In all racial/ethnic groups, incidence rates of glioblastoma were lower among females compared to males.

Figure 2. Age-adjusted incidence rates of glioblastomas by race/ethnicity, Greater Bay Area, 2001-2005

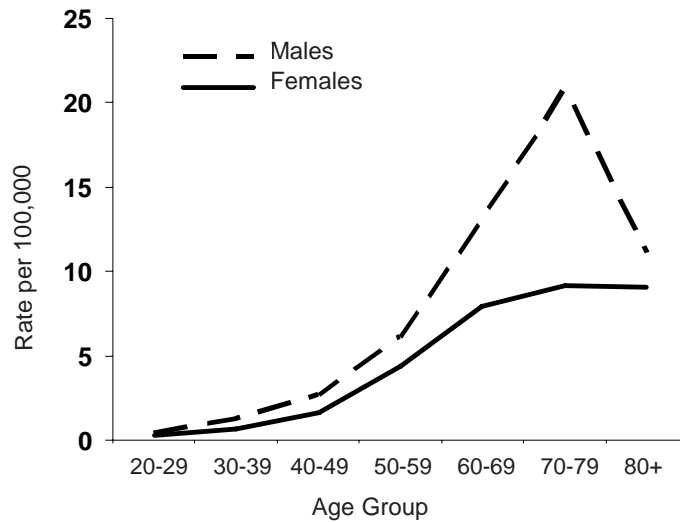




AGE-SPECIFIC INCIDENCE

Glioblastoma occurrence in the Greater Bay Area begins to increase with age, peaking at 70-79 years of age, in both males and females (Figure 3).

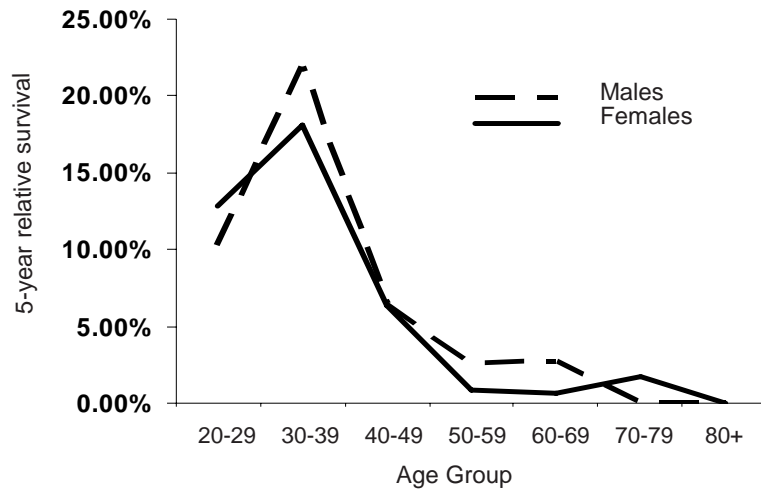
Figure 3. Age-specific incidence rates of glioblastomas by age group, Greater Bay Area, 2001-2005



5-Year Relative Survival

Overall, the 5-year relative survival from glioblastoma was 11%. The highest 5-year relative survival was seen among the age group 30-39 years of age (Figure 4). The prognosis for malignant brain tumors is most favorable in patients under 40 years of age (IRSA).

Figure 4. 5-year relative survival of glioblastomas by age group, Greater Bay Area 1991-2005



References:

International Radiosurgery Association (IRSA). Glioblastomas. Retrieved on January 30, 2008. <http://www.irsa.org/glioblastoma.html>.

American Brain Tumor Association (ABTA). Tumor and Treatment Information: Gliomas - Astrocytoma, Glioblastoma, Oligodendroglioma. Retrieved on January 30, 2008. <http://www.abta.org/index.cfm?contentid=230>.

Technical Notes: Because age distributions vary by population, a standard statistical procedure called "age-adjustment" was used so that we can examine differences in cancer incidence and mortality rates due to factors other than age. Rates are age-adjusted (using the Year 2000 population standard) unless noted to be age-specific. Race/ethnicity was categorized as four mutually-exclusive racial/ethnic groups: non-Hispanic whites (whites), non-Hispanic blacks (blacks), Hispanics, and non-Hispanic Asians/Pacific Islanders (Asians/Pacific Islanders).

About the data: Cancer data have been collected in Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties since 1973, and in Monterey, San Benito, Santa Clara, and Santa Cruz counties since 1988, forming two parts (Regions 1 and 8) of the California Cancer Registry. These counties, referred to as the Greater San Francisco Bay Area are also part of the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) registry program.

Founded in 1974, the mission of the Northern California Cancer Center is to reduce the burden of cancer through surveillance, epidemiology, prevention research and education. Essential to this mission is collaboration with partners in cancer research, education and the community.

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