Increasing brain tumor rates: is there a link to aspartame?
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Abstract
In the past two decades brain tumor rates have risen in several industrialized countries, including the United States. During this time, brain tumor data have been gathered by the National Cancer Institute from catchment areas representing 10% of the United States population. In the present study, we analyzed these data from 1975 to 1992 and found that the brain tumor increases in the United States occurred in two distinct phases, an early modest increase that may primarily reflect improved diagnostic technology, and a more recent sustained increase in the incidence and shift toward greater malignancy that must be explained by some other factor(s). Compared to other environmental factors putatively linked to brain tumors, the artificial sweetener aspartame is a promising candidate to explain the recent increase in incidence and degree of malignancy of brain tumors. Evidence potentially implicating aspartame includes an early animal study revealing an exceedingly high incidence of brain tumors in aspartame-fed rats compared to no brain tumors in concurrent controls, the recent finding that the aspartame molecule has mutagenic potential, and the close temporal association (aspartame was introduced into US food and beverage markets several years prior to the sharp increase in brain tumor incidence and malignancy). We conclude that there is need for reassessing the carcinogenic potential of aspartame.

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