The relationship between various occupational exposures and brain cancer was investigated in a case-control study using mortality data from 202 males who died in East Texas from gliomas in 1969-1978 and 238 male controls randomly selected from all deaths in East Texas in 1969-1978. Using the occupational classification scheme of the U.S. Bureau of the Census, the risk for brain cancer was significantly increased for male workers employed in the transportation, communication, and utilities industries [odds ratio (OR) = 2.26, confidence intervals (CI) = 1.18-4.32]. Further examination of this finding showed that male workers employed in occupations associated with electricity or electromagnetic (EM) fields had an elevated risk for brain cancer (OR = 3.94, CI = 1.52-10.20). In addition, there was a linear relationship between the probability of exposure to EM fields and brain cancer. Significantly elevated risk for brain cancer was also found among male workers in the trucking industry.

Key words: epidemiology, gliomas, EM fields and brain cancer