

A Nested Case-Control Study of Brain Tumors Among Employees at a Petroleum Exploration and Extraction Research Facility

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Work-related exposures potentially associated with a cluster of brain tumors at a petroleum exploration and extraction research facility were evaluated in a nested case-control study. Fifteen cases were identified in the original cohort and 150 matched controls were selected. Odds ratios (ORs) for occupational exposure to petroleum, radiation, solvents, magnetic fields, and work activities were near or below 1.0. ORs near 1.5 were observed for: working with computers (OR = 1.47; 95% confidence interval [CI] = 0.30–9.35); work-related travel (OR = 1.48; 95% CI = 0.25–5.95), and travel immunizations (OR = 1.62; 95% CI = 0.23–9.45). Higher ORs were observed for work in administrative and marketing buildings and for achieving a master's or higher degree (OR = 2.0, 95% CI = 0.4–10.7). While some ORs above 1.5 were noted, no work-related chemical and physical exposures were significantly associated with the occurrence of brain tumors among employees at this facility.