Occupation and risk of glioma, meningioma and acoustic neuroma: Results from a German case-control study (Interphone Study Group, Germany).


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Background: Several epidemiological studies have investigated the association between occupation and brain tumour risk, but results have been inconclusive. We investigated the association between six occupational categories defined a priori: chemical, metal, agricultural, construction, electrical/electronic and transport, and the risk of glioma, meningioma and acoustic neuroma. Methods: In a population-based case-control study involving a total of 844 cases and 1688 controls conducted from 2000 to 2003, detailed information on life-long job histories was collected during personal interviews and used to create job calendars for each participant. Job title, job activity, job number, and the starting and ending dates of the activity were recorded for all activities with duration of at least 1 year. Reported occupational activities were coded according to the International Standard Classification of Occupations 1988 (ISCO 88). For the analyses we focused on six a priori defined occupational sectors, namely chemical, metal, agricultural, construction, electrical/electronic and transport. Multiple conditional logistic regression analysis was used to estimate odds ratios and their 95% confidence intervals. Results: Most of the observed odds ratios were close to 1.0 for ever having worked in the six occupational sectors and risk of glioma, meningioma and acoustic neuroma. Sub-group analyses according to duration of employment resulted in two elevated odds ratios with confidence intervals excluding unity. Conclusions: We did not observe an increased risk of glioma or meningioma for occupations in the agricultural, construction, transport, chemical, electrical/electronic and metal sectors. The number of 'significant' odds ratios is consistent with an overall 'null-effect'. Copyright © 2009 Elsevier Ltd. All rights reserved.

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