Use of mobile phones in Norway and risk of intracranial tumours.

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To test the hypothesis that exposure to radio-frequency electromagnetic fields from mobile phones increases the incidence of gliomas, meningiomas and acoustic neuromas in adults. The incident cases were of patients aged 19-69 years who were diagnosed during 2001-2002 in Southern Norway. Population controls were selected and frequency-matched for age, sex, and residential area. Detailed information about mobile phone use was collected from 289 glioma (response rate 77%), 207 meningioma patients (71%), and 45 acoustic neuroma patients (68%) and from 358 (69%) controls. For regular mobile phone use, defined as use on average at least once a week or more for at least 6 months, the odds ratio was 0.6 (95% confidence interval 0.4-0.9) for gliomas, 0.8 (95% confidence interval 0.5-1.1) for meningiomas and 0.5 (95% confidence interval 0.2-1.0) for acoustic neuromas. Similar results were found with mobile phone use for 6 years or more for gliomas and acoustic neuromas. An exception was meningiomas, where the odds ratio was 1.2 (95% confidence interval 0.6-2.2). Furthermore, no increasing trend was observed for gliomas or acoustic neuromas by increasing duration of regular use, the time since first regular use or cumulative use of mobile phones. The results from the present study indicate that use of mobile phones is not associated with an increased risk of gliomas, meningiomas or acoustic neuromas.

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