LETTERS

Re: Mobile phone use and brain tumours in the CERENAT case-control study

We have with great interest read the article by Coureau *et al*¹ on mobile phone use and the risk for glioma and meningioma. However, we are concerned about the results in appendix 2.

Side of mobile phone use was defined as ipsilateral for cases if the phone was used on the same side of the brain as the tumour or on both sides. Contralateral use was assigned to cases with tumour on the opposite side as the phone was used. OR for both ipsilateral and contralateral use was lower than the total OR which is not what one would expect. It seems all controls were used in the analysis without assignment of 'tumour laterality'. In our studies²⁻⁴ and in Interphone⁵ the matched control was given the same 'tumour side' as the respective case.

To illustrate the problem we have reanalysed our results on glioma and meningioma for the time period 1997–2009²⁻⁴ using Coureau *et al*'s method for laterality calculations. For glioma this yielded for ipsilateral use OR=1.00, 95% CI 0.75 to 1.32 and for contralateral use OR=0.37, 95% CI 0.25 to 0.53. Both these ORs were lower than the total OR (OR=1.31; 95% CI 1.09 to 1.58). Assigning the control the same side as the matched case yielded for ipsilateral use OR=1.75, 95% CI 1.41 to 2.19 and for contralateral use OR=1.08, 95% CI 0.84 to 1.39, thus grouped around the total result. Applying Coureau *et al*'s method to meningioma had a similar effect (ie, ORs for both ipsilateral and contralateral use lower than total OR).

Obviously we would like to see analysis of the CERENAT study using the same method for definition of laterality as in our studies and in Interphone.

Lennart Hardell, Michael Carlberg

Department of Oncology, University Hospital, Örebro, Sweden

Correspondence to Dr Lennart Hardell, Department of Oncology, University Hospital, Örebro SE-701 85, Sweden; lennart.hardell@orebroll.se

Contributors MC carried out the statistical analysis. LH and MC wrote and approved the final version of the letter.

Competing interests None.

Patient consent Obtained.

Ethics approval Uppsala University Hospital.

Provenance and peer review Not commissioned; internally peer reviewed.

CrossMark

To cite Hardell L, Carlberg M. *Occup Environ Med* 2015;**72**:79.

Received 11 July 2014

Accepted 29 July 2014

Published Online First 11 November 2014

► <http://dx.doi.org/10.1136/oemed-2014-102649>

Occup Environ Med 2015;**72**:79.
doi:10.1136/oemed-2014-102448

REFERENCES

- 1 Coureau G, Bouvier G, Lebaillly P, *et al*. Mobile phone use and brain tumours in the CERENAT case-control study. *Occup Environ Med* 2014;**71**:514–22.
- 2 Hardell L, Carlberg M, Söderqvist F, *et al*. Case-control study of the association between malignant brain tumours diagnosed between 2007 and 2009 and mobile and cordless phone use. *Int J Oncol* 2013;**43**:1833–45.
- 3 Carlberg M, Söderqvist F, Hansson Mild K, *et al*. Meningioma patients diagnosed 2007–2009 and the association with use of mobile and cordless phones: a case-control study. *Environ Health* 2013;**12**:60.
- 4 Hardell L, Carlberg M, Hansson Mild K. Pooled analysis of two case-control studies on use of cellular and cordless telephones and the risk for malignant brain tumours diagnosed in 1997–2003. *Int Arch Occup Environ Health* 2006;**79**:630–9.
- 5 Interphone Study Group. Brain tumour risk in relation to mobile telephone use: results of the INTERPHONE international case-control study. *Int J Epidemiol* 2010;**39**:675–94.