

News :: 01/09/2005 - Mobile Phones may increase brain cancer

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Summary:

The media widely and incorrectly reported that the largest ever study into mobile phone use and brain cancer showed no increase in the first 10 years of use. In fact, this only applied to a rare form benign tumour, Acoustic Neuroma, and that the study did find an increased risk after 10 years of use of 1.8-fold - i.e. almost a doubling in risk. This misreporting seems to have been due to the content of an email send to the media by the Science Press Officer of Institute of Cancer (ICR) Research and the fact that it was almost impossible to get hold of a copy of the actual paper before the news embargo deadline by which time most people had written, filmed and filed their stories.

Acoustic Neuromas are very slow growing and few are diagnosed before 10 years have elapsed from the original initiation of the cancer. Some take up to 30 years to be diagnosed. So, it is most unlikely that any study would find a significant change in incidence levels before about 10 years had passed. **Looking at the results of this study in that light, it confirms some other studies' findings that, after 10 years use, there is a significant increase in Acoustic Neuromas on the side of the head where the mobile phone user victim usually held their handset.**

Details:

There is public concern that the use of mobile phones could increase the risk of brain tumours. A number of studies have found a significant increase in the incidence of acoustic neuromas, especially on the same side of the head where the mobile handset was regularly held. Other studies have not. These are listed in the discussion section of this new paper.

The age-corrected incidence of brain cancer in the UK has been rising at about 1.7% per year over the last 25 years [2]. Nobody has identified the reasons for this increase which pre-dates the take up of mobile phones but does not pre-date the rise of high-frequency electronics and the "wireless revolution". We are not suggesting that electromagnetic fields are responsible for anything like this entire rise, but they are certainly on the "suspects" list as a possible causal factor. Most solid tumours take over five years to develop to the point of diagnosis, and many take 10 to 20 years to do so.

This latest study was press-released with the claim that it had failed to find an association between brain-cancer and mobile phone use. In fact, it only considered acoustic neuroma, a relatively rare (about 6% of brain tumours), very slow-growing, benign tumour that is generally understood to take between 10 and 30 years to develop to the stage when it is diagnosed [3]. This new study did find a 1.8-fold increased risk (CI 1.1-3.1), after 10 years phone use, of acoustic neuromas developing in the side of the head where the mobile phone handset was usually held. So, it was quite wrong to Press Release it as proving that mobile phone use is not associated with the development of brain cancer.

The data from the Swedish cases was published earlier [4, 5] and that paper showed a 3.9-fold increased risk (CI 1.6-9.5), after 10 years phone use, of acoustic neuromas developing in the side of the head where the mobile phone handset was usually held.

Some other Swedish studies [e.g. 6] have also implicated mobile phone and extensive cordless phone over a long time with the incidence of other brain tumours.

We, at Powerwatch, are more concerned about the possibility that regular mobile and cordless phone use stimulates the development of early-onset (pre-age 60) dementias, the incidence of which is significantly rising at present.

Our advice stays the same. Children really should not use a mobile phone other than in a real emergency, and adults should minimise their use - wait until you can get to a land-line phone, send a short text message, or use a air-pipe hands-free kit and hold the handset away from your body when making a phone call.

- Alasdair Philips

[1] Schoemaker M J, et al, (2005) Mobile phone use and risk of acoustic neuroma: results of the Interphone case-control study in five North European countries, British Journal of Cancer, September 2005.

Available from: <http://www.nature.com/bjc/journal/vaop/ncurrent/abs/6602764a.html>

[2] <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=4822>

[3] United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). Sources and effects of ionizing radiation. UNSCEAR 2000. Report to the General Assembly, with scientific annexes. New York.

[4] Lonn S, et al, (2004) Mobile phone use and the risk of acoustic neuroma, Epidemiology, Vol 15, No 6, 653-659, November 2004.

[5] Lonn S, et al., (2005) Long term mobile phone use and brain tumour risk, American Journal of Epidemiology, vol 161, No.6, 526-535.

[6] Hardell L, Mild K, Carlberg M, (2003) Further aspects on cellular and cordless telephones and brain tumours. International Journal of Oncology 22: 399-407.

Also see: http://www.powerwatch.org.uk/news/20050516_tumour.asp