

Mobile phones and cancer risks

Scientists manipulated research – played down brain tumour risks in children.

A new industry-sponsored study on brain tumour risks in children who use mobile phones was presented to the media in July 2011. The press-release claimed that the results were "reassuring" whereas the study itself indicated an increased risk. Apart from playing down the results, there is evidence that the scientists also manipulated the research in order to underestimate the risks, especially of cordless phones.

The CEFALO study on the possible link between brain tumours and mobile phone use among children showed an increased risk for children and adolescents who used a mobile phone regularly.¹ - *Cefalo indicates in fact significantly increased risks, and the risks increase with increased use*, says the Swedish oncologist and epidemiologist Lennart Hardell one of the experts who participated in the recent WHO evaluation on mobile phone radiation and cancer.

The increased risks of which some were statistically significant are mentioned neither by the Cefalo scientists [Martin Röösl](#) and [Maria Feychting](#), nor by the Journal of the National Cancer Institute (JNCI). Their press-releases give reassuring messages as if no risk had been observed. - *Results are reassuring because they are non-significant and thus are compatible with chance*, states for example Martin Röösl.² This interpretation of non-significant results differs from normal, straightforward presentations like the one a Norwegian Cefalo researcher put forward in 2005: "*We found an elevated risk for residential exposure to magnetic fields and brain tumours, although the risk was not significant*".³ It is also noteworthy that the JNCI let a consultant from the International Epidemiology Institute (IEI) express the reassuring message in their press-release. IEI has been identified as a *product-defence firm*⁴.

Other intriguing facts about the Cefalo study include the small size of the sample, the low interest in other sources of non-ionizing radiation (EMF) that the children might have been exposed to, and the incomplete study of the impact of cordless phones. Mobile and cordless phones emit the same kind of radiation, and were both taken into consideration by the WHO evaluation mentioned above. Martin Röösl, the coordinator of Cefalo and a board member of the industry funded Swiss Research Foundation on Mobile communication gives the following explanation of why the Cefalo team only studied the first three years of cordless phone use: - *You cannot prove all hypotheses with one study, unless you make a very long interview.*

This is puzzling as the Cefalo questionnaire was rather long (267 questions) and Röösl was aware of the role of cordless phones as shows the following quotation : "*Mobile and cordless phone radiation is an important exposure source*".² A large number of questions treated confounding factors including the test persons' contacts with cigarette smoke (38 questions), snakes and goats. Only five questions focused on cordless phones. According to Röösl one of them was: "*How often did (child) speak on cordless phone in the first 3 years he/she used it regularly?*" Curiously, the questionnaire sent to the Karolinska Institute's ethical review board in 2005 did not include this question, but one that was not restricted to the first 3 years of use: "*How often does (child) speak on a cordless phone? (calling and receiving altogether)*".⁵ Why and when did the Cefalo scientists decide to limit the study of cordless phone use, and is this

¹ The Cefalo study : www.ncbi.nlm.nih.gov/pubmed/21795665

² Email from Martin Röösl to Mona Nilsson

³ Lars Klaebo et al www.ncbi.nlm.nih.gov/pubmed/15688420

⁴ George Carlo.: The Latest Reassurance Ruse about Cell phones and Cancer; J. Aust. Coll. & Env. Med., 2007

⁵ Karolinska Institutets Etikprövningsnämnd: 2005/1562-31

methodologically and ethically acceptable? - *Restricting the study to the first three years of use will lead to an underestimation of risks. We know that telephone use increase with age and that teenagers talk more than children, says Lennart Hardell.*

The elusive press-releases and the sudden restriction of cordless phone use have raised suspicions of an intentional underestimation of the health risks. Professor Joel Moscovitz, Director of Center for Family and Community Health, School of Public Health University of California, questions the conclusions of the Cefalo scientists and the IEI, and claims that the study was biased. His conclusion finds support in recent history. Several studies reveal that it has become a widespread practice to use outcome-oriented science to create doubt in order to postpone regulation and protect the manufacturers.⁶

The manufacturer that would be protected in this case is the mobile phone industry. “*Any perceived risk or new scientific findings of adverse health effects of mobile communication devices and equipment could adversely affect us through a reduction in sales or through liability claims.*”⁷ The mobile phone industry’s interest groups are very active in Brussels and Washington, they are also investing huge amounts in research on health effects, including the Cefalo study. A large majority of the industry-sponsored studies conclude that EMF radiation is harmless, while most independent studies conclude that there is a risk.⁸

Cefalo might have been designed to play down risks, but instead of challenging the findings of the international Interphone group and the Swedish Hardell group, it reconfirms them. These studies made IARC, the cancer research agency of the World Health Organisation, classify mobile phone radiation as “possibly carcinogenic” in May 2011.

There is now more than enough evidence for an application of the precautionary principle according to the International EMF Alliance, a public interest NGO representing some 60 grassroots organisations advocating for a regulation and a reduction of electro-pollution.
– *The irrational “zero-risk” interpretation of the Cefalo scientists creates doubts and could postpone preventive measures and cause unnecessary suffering. Mobile phone use has increased massively among children and teenagers the last decade, and even a small increase of brain tumour risks is of great concern, says Alex Swinkels, IEMFA board member.*

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CEFALO FACTS

Sample: Cefalo included 352 children aged 7–19 who were diagnosed with a brain tumour, in the period 2004–2008 in Sweden, Denmark, Norway and Switzerland, and 646 controls.

Results: Almost all tables indicate an increased risk. The risk was 36% higher for children and adolescents who used mobile phones regularly. (OR 1,36, CI 0,92-2,02). The risk was amplified by a longer latency time and was more than twice as high (+115%) for children for whom the longest time had elapsed since they received their first mobile phone subscription. (OR 2,15, CI 1,07-4,29).

Statistical significance: The odds ratio (OR) measures the odds of an event occurring in a group compared to a control group. Positive results are considered to be statistically significant when the entire confidence interval (CI) is above 1. The doubled risk mentioned above is thus significant.

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Mona Nilsson is a Swedish award-winning author and investigation journalist. She revealed that professor Anders Ahlbom at the Karolinska Institute, Stockholm was a board member of a lobby firm acting for the telecom industry, while assessing health risks of wireless technologies. This resulted in Ahlbom resigning from two expert panels in 2011 (IARC and SSM) and amending his declarations of interests. www.monanilsson.se

⁶ David Michaels; Doubt is their product 2008, TO. McGarity, WE. Wagner, Bending Science, 2008,

⁷ Ericsson’s annual report 2010.

⁸ Huss A et al. Source of funding and results of studies of health effects of mobile phone use. Environ Health Perspect. 2007 Jan;115(1):1-4.