LETTERS TO THE EDITOR


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The article by Utteridge et al. (1) published in the September issue of Radiation Research has evoked a worldwide echo in the lay press as well as in more scientific circles. The results of the reported study were taken as a proof that exposure to microwaves from mobile telephones is safe. However, besides the fact that such a proof is logically impossible, it is also doubtful whether this study contributed materially to the important question of long-term effects of microwave exposure.

The study was planned as an improved replication experiment of the study of Repacholi et al. (2), who found a more than twofold increase in lymphoma incidence in Ep-Pim1 mice exposed to microwave fields similar to those emitted by GSM mobile phones. In fact, Utteridge et al. (1) introduced a number of important improvements, but at the same time changed some decisive features of the original experiment, thereby calling not only comparability into question but, as I will show, made it impossible to use their results within the body of evidence.

The idea to investigate not only a single exposure level as in the earlier study was sound, as was the decision to perform necropsies in all surviving mice. However, the following changes were problematic if not disastrous: To narrow down the variability of SAR, they restrained the mice, they exposed them only once a day, and exposure was only during the morning. Furthermore, they extended observation time from 18 to 24 months and exposed only 5 days a week while the previous study exposed animals and there should be no human interference that marks the period of exposure.

Overall the study of Utteridge et al. (1) cannot balance the positive result of the previous study by Repacholi et al. (2). It is still a matter of concern that under yet-unknown side conditions microwave exposure may increase the likelihood of certain malignancies.

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References

