EMFs

It is often supposed that workers in the electricity generation industry will have the highest occupational exposure to EMFs. If there are genuine associations between exposure and adult ill health they should (arguably) be found most easily among this population.

This study tested the hypothesis that exposure to EMFs may be associated with mortality from brain cancer.

In all 83 997 CEGB employees were eligible for the study. Their mortality records between 1973 and 1997 were assessed. All were employed for more than 6 months with some employment between 1973 and 1982. Minimum follow-up period was therefore 15 years.
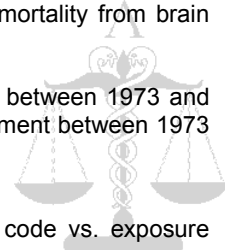
Detailed work histories were available for 79,972 workers. An established a job code vs. exposure matrix was used to assign occupational exposure for each worker.

Exposures were bracketed according to Micro Tesla years and grouped as follows 0 to 2.4, 2.5 to 4.9, 5.0 to 9.9, 10.0 to 19.9 and ≥ 20.0. These groupings were chosen to ensure that there were a good number of deaths in each bracket, thereby giving confidence in any analysis. The groupings were decided before any analysis had been undertaken.

Deaths from brain cancer were recorded as follows:
Observed = 158
Expected (from equivalent general population) = 146.4
Standardised Mortality Ratio (SMR) = 108 (95% CI = 92 to 126)

No increased risk was found for either lifetime exposure or the most recent 5 years of exposure.

NO Dose Response effect was found.

Comment
Tends to confirm previous findings, which have shown no confidence in there being an increased risk of brain cancer with exposure to EMFs.

The exposure assessment assumed in this study ought to be validated.

Domestic exposure is generally an order of magnitude less that the highest exposures found among this study population.

There are serious doubts about the value of continued research of this kind. A SMR of 200 would be needed to make a case, on the balance of probabilities.

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