The digital system was introduced in Denmark in 1992. We have no further comments on this historical reality. We did not exclude any case or any control from the analysis because of their use of a hands-free device. What Hardell and Hansson Mild (1) express in relation to laterality does not contradict what we explain in our paper (3). Hearing problems, as we describe, are the most likely explanation that our risk estimates were biased toward a reduction in risk for heavier users. Consideration of hearing problems in the analytical model reveals an odds ratio close to 1. It is true that blinding is not possible for face-to-face interviews, but the major advantage of this method is the fact that the interview is more standardized for cases and controls because you are able to have spontaneous answers from both groups. Use of postal questionnaires has the disadvantage that often cases spend more time thinking about the question, being eager not to miss an exposure, while controls tend to forget minor exposures, which leads to an overestimation of exposure by cases (5).

Concerning the issues raised by Dr. Kundi (2), we have no particular comment on the overall reflections concerning initiation and/or promotion of radio-frequency exposure in relation to the risk of acoustic neuroma. In general, the iPhone Study will be analyzed in ways that will allow the investigation of the association between radio-frequency exposure and the risk of tumors under study and, if relevant and possible, of the mechanism for such an association.

REFERENCES


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RE: “DO MEN HAVE A HIGHER CASE FATALITY RATE OF SEVERE ACUTE RESPIRATORY SYNDROME THAN WOMEN DO?”

In a recent issue of the Journal, Karlberg et al. (1) reported on an analysis of severe acute respiratory syndrome (SARS) data from Hong Kong. The authors found a substantial and statistically significantly higher mortality rate for males than for females, which persisted after adjustment for patient age. We wish to report the results of an analysis of similar data from the Taiwan Center for Disease Control (2). After reclassification of the data by World Health Organization case definition and after polymerase chain reaction and SARS antibody testing, the total number of SARS cases in Taiwan during last year’s epidemic was 346; 73 (21.1 percent) of these patients died, either directly from SARS or from a SARS-related cause (2). The overall mortality rate was higher than that reported for Hong Kong (17.0 percent) (1), and the difference was close to significance (p = 0.079).

While it was not possible to directly compare the age distributions of the Hong Kong and Taiwanese patients because of differences in the way patients were grouped by age, the distributions appeared to be roughly similar. In addition, since larger percentages of Taiwanese patients were women (63.0 percent vs. 55.8 percent for Hong Kong) and healthcare workers (30.3 percent vs. 21.9 percent for Hong Kong), this higher mortality rate could not have been due to confounding by these variables.

Table 1 shows the distributions of cases and deaths by gender and age group. The 128 Taiwanese male SARS patients had a significantly (p = 0.002) higher mortality rate (30.5 percent) than the 218 female patients (15.6 percent). As in Hong Kong, Taiwanese female patients were significantly (p < 0.0005) younger than males, with 55.0 percent of females versus 37.5 percent of males being under 40 years of age at diagnosis, while 25.0 percent of males versus 10.6 percent of females were over age 60 years.

A logistic regression model was fitted to these data with gender and age (imputed as the midpoint of the age interval to which the patient belonged) used as independent variables. While older age remained a significant (p < 0.0005) predictor of mortality, gender was no longer significant (p = 0.178). However, the effect size observed for gender (approximate (3) adjusted relative risk = 1.40, 95 percent confidence interval: 0.74, 2.54) was reasonably close to that estimated for Hong Kong (relative risk = 1.62) (1). Unlike in Hong Kong, the gender difference in mortality did not diminish with increasing age. In fact, the mortality rates
were similar for patients under age 40 years at diagnosis (7.5 percent for females vs. 6.3 percent for males) and patients aged 60 years or over (56.5 percent for females vs. 62.5 percent for males); a large mortality rate difference was observed only for patients aged 40–59 years (33.3 percent for males vs. 16.0 percent for females).

The 105 Taiwanese SARS patients who were health-care workers had a mortality rate (11.4 percent) that was significantly ($p = 0.0056$) lower than that of non-health-care workers (25.3 percent) (2). Given the excess of female SARS patients in the age group 20–49 years, it is likely that most of the health-care workers were young women, as was the case for Hong Kong (1). Therefore, the possibility that health-care-worker status is a confounder of the observed gender-mortality relation cannot be excluded. Likewise, confounding by other variables such as comorbid conditions, smoking history, or time from the appearance of symptoms to hospitalization cannot be ruled out.

### REFERENCES


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**Editor’s note:** In accordance with journal policy, Dr. Karlberg and his colleagues were asked whether they wished to respond to this letter, but they chose not to do so.