Prevalence of epilepsy in Hong Kong

To the Editor—There is a glaring lack of data on the epidemiology of epilepsy in Hong Kong, even though epilepsy is the most common serious chronic neurological condition. Attempts to fill this knowledge gap are therefore welcomed. We feel, however, that it is necessary to point out fundamental flaws in the methodology of the ‘prevalence’ study of Fong et al published in this Journal.1 Their results may misrepresent the true impact of this stigmatising and potentially devastating condition, and may result in the inappropriate distribution of resources.

We have two major concerns about the results of this study. Firstly, the reported prevalence of active epilepsy of 1.54 per 1000 population is remarkably low. In contrast, in their review of studies of active epilepsy from different countries of the world, Sander and Shorvon2 found prevalence rates of 4 to 10 in 1000. The figure reported in the paper of Fong et al is also substantially lower than the lifetime prevalence rates of 4.4 in 1000 and 7.0 in 1000 published in two major studies in mainland China.3,4 The most likely explanation for this difference is that only patients attending a single specialist clinic were included; this is also reflected in the absence of the expected peak in elderly patients with epilepsy. Community surveys have been known to result in prevalence rates twice those found in hospital-based studies.2 The methodology used by Fong et al, as well as their results, suggest that the prevalence of active epilepsy obtained in their study is a gross underestimation of the true prevalence figure of Hong Kong. Similar local epidemiology studies have highlighted the need to conduct a truly community-based prevalence study of epilepsy in Hong Kong. Such a study is currently underway as a project of the Hong Kong Epilepsy Society.

Scientifically valid epidemiological studies on epilepsy are long overdue. The results of the study by Fong et al have highlighted the need to conduct a truly community-based prevalence study of epilepsy in Hong Kong. Such a study is currently underway as a project of the Hong Kong Epilepsy Society.

ACF Hui, FRCP, FHKAM (Medicine)
Division of Neurology
Department of Medicine, Prince of Wales Hospital
Shatin, Hong Kong
P Kwan, PhD, FHKAM (Medicine)
Division of Neurology
Department of Medicine, United Christian Hospital
Kwun Tong, Kowloon, Hong Kong

References

Authors’ reply

To the Editor—Thank you for Hui and Kwan’s comments and listing our concerns regarding the local epidemiological data for seizure disorders.1 Method and thoroughness of case ascertainment is a prime determinant of the precision of epidemiological figures.2 As mentioned in our paper, due to the intrinsic constraints of the methodology, it is likely that our figure is an underestimation of the true prevalence figure of Hong Kong.1 Similar local epidemiology studies were conducted and yielded similar prevalence rates.3,4 Regarding your second concern, classification of seizure
Severe acute respiratory syndrome and respiratory protection

To the Editor—Severe acute respiratory syndrome (SARS) emerged last year as a new infectious disease, as well as an occupational hazard for health care workers treating infected patients. The Centers for Disease Control and Prevention (CDC) recently drafted guidelines suggesting that routes of transmission of the SARS-associated coronavirus (CoV) involve the mucous membranes, such as the respiratory system and conjunctivae of the eyes (ocular and fomite viral). Correspondence by Wong in the Journal suggests that the N-95 mask (respirator) is “appropriate” in the protection against the SARS CoV. This notion is supported by the CDC’s recommendation that N-95 respirators be worn to protect health care workers against inhalation hazards from SARS. I have recently suggested that a higher level of protection (ie a full-face air-purifying respirator; FFR) is warranted, because droplets under appropriate conditions may dry out and result in small airborne particles. Occurrence of these particles seems to be most relevant to the spread of SARS when health care workers perform aerosol-generating procedures, especially because the SARS CoV may survive outside the body for longer than 48 hours.

Studies of the protection provided by barriers and respirators have found that paper and surgical masks are inadequate, but that N-95 respirators are both adequately protective and inadequately protective. The researchers note, however, that N-95 masks were not fit-tested in every case. Overall, these studies suggest that N-95 respirators do not have optimal efficiency. It should be noted that testing alone is unlikely to remedy the problems associated with N-95 respirators, especially because cases of SARS have been reported among people who had used fitted N-95 respirators along with other protective equipment, including eye and face shields.

To provide the best protection against airborne and droplet transmission, the use of an elastomeric FFR with an ultralow penetrating air (ULPA) filter has been suggested. This type of respirator will provide protection for the conjunctivae of the eyes and reduce leakage at the face seal. Eye protection is important because health care workers using fitted N-95 respirators, other protective equipment, and eye and face shields have contracted SARS. Because ULPA filters can filter out mono-dispersed particles of 120 μm or larger and because the SARS CoV is about 60 to 80 μm, ULPA filters might be more efficient than high-efficiency particulate air (HEPA) filters, especially when aerosol-generating procedures are performed. However, when aerosol-generating procedures are not being performed, the existence of electrostatic charges on the SARS CoV and the low likelihood of droplet formation may allow HEPA filters to be used.

One recent report has suggested that powered air-purifying respirators be used to protect against SARS. These respirators work under positive-pressure, whereas FFRs work under negative-pressure. The limitations of powered air-purifying respirators include their bulkiness, the need for a battery (which limits its duration of use), and increased weight. The biggest advantage of powered...