Factors Associated with the Occurrence of Hearing Loss After Pneumococcal Meningitis

To the Editor—We read with interest the recent article by Worsoe et al [1] regarding the occurrence of hearing loss after pneumococcal meningitis. We would like to make some comments and seek some clarifications regarding their study.

The authors report an overall hearing loss of 54% (69% in adults and 31% in children) after an episode of pneumococcal meningitis. The median time between the onset of disease and audiometric testing was 12 months, with 87% of testing being done 2 months after the episode of meningitis. This raises the question of whether the hearing loss detected on audiometry was causally related to an episode of meningitis that might have occurred a year before. Inclusion of patients with hearing loss that might be secondary to causes other than meningitis could explain the high incidence reported in this study, compared with that reported in 3 previous studies with rates of postmeningitis hearing loss of 15%–26% [2–4]. The authors also do not comment on whether the hearing loss was sensorineural or conductive, which might have excluded some cases that were likely not due to meningitis.

The authors point out that 38% of the patients who did not have hearing loss detected by clinical evaluation were found to have so by audiometric testing. Based on this observation, they recommend postmeningitis audiometric testing in all patients. We question the usefulness of such a strategy, because it involves a large subset of patients who are asymptomatic and do not require any intervention. This is especially true because there is no prophylactic or preventive therapy available, and the hearing loss is permanent, for the most part. The extra cost of audiomteric testing and referral to an otolaryngologist does not seem justified in an asymptomatic patient who does not warrant a hearing aid.

In addition, the authors report a statistically significant increase in the incidence of hearing loss among adults who received corticosteroids as part of the treatment of pneumococcal meningitis. The reason for and clinical implication of this finding are hard to ascertain, and the authors do not delve very far into this. Although the use of steroids in the treatment of meningitis has been somewhat controversial, a recent meta-analysis [5], which the authors mention, does suggest a beneficial role for dexamethasone in reducing hearing loss after meningitis.

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References


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