Communications

Communications for this section will be published as space and priorities permit. The comments should not exceed 350 words in length, with a maximum of five references; one figure or table can be printed. Exceptions may occur under particular circumstances. Contributions may include comments on articles published in this periodical, or they may be reports of unique educational character. Specific permission to publish should be cited in a covering letter or appended as a postscript.

Hypomagnesemia in Intensive Care
Correction of Units

To the Editor:

Please note that our article entitled "Hypomagnesemia in Patients in Postoperative Intensive Care" (Chest 1989; 95:391-97) contains an error in regard to the units used for serum magnesium concentrations in several places throughout the text. The correct unit should be mEq/L, not nEq/dL as published.

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Mortality in Sleep Apnea

To the Editor:

Does sleep apnea protect against death during sleep? The data of Gonzales-Rothi and Block suggest this unlikely proposition, as none of the nine deaths in their sleep apnea patients (compared to three of four deaths in the nonapneic control group) occurred during sleep. Studies of time of death in the general population, however, show that the proportion of deaths steadily increases during the usual sleep period and reaches the 24-h maximum near 6:00 a.m. Could misclassification of time or sleep state at death account for the surprising findings in these sleep apnea patients?

Of greater importance is the question of mortality in sleep apnea and its relation to treatment. Two other reports have shown convincingly that mortality is increased in patients with sleep apnea and that effective treatment (i.e., tracheostomy or nasal CPAP) can reduce this risk.1-4 Mortality rates in the patients of Gonzales-Rothi and Block are similar to the rates of the "untreated" patients in these other studies. Their negative conclusions regarding mortality and treatment result from comparison with a control group that has increased mortality for reasons other than apnea and from the inclusion of ineffective treatment in the treatment group. Both conclusions should, therefore, be rejected.

In an editorial, Gonzales-Rothi and Block suggest that retrospective studies are flawed by their very nature and that a prospective study is needed to define the natural history of sleep apnea syndrome.5 Given the availability of several effective therapies and the demonstration that these treatments reduce mortality, it is unlikely that withholding treatment in patients with significant sleep apnea will be considered ethically acceptable. The natural history of untreated sleep apnea syndrome will, therefore, have to be defined by retrospective observations of patients.

The evidence to date indicates that mortality is increased in sleep apnea. Additional studies are needed to define the risk of mortality attributable to sleep apnea compared to other risk factors in these patients, the relationship of apnea to morbidity and disability, and the effect of various interventions on morbidity and mortality.

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REFERENCES

1 Gonzales-Rothi RJ, Foresman GE, Block AJ. Do patients with sleep apnea die in their sleep? Chest 1988; 94:531-38

To the Editor:

We greatly appreciate the comments and questions raised by Drs. Schmidt-Nowara and Coultas. At the outset, we would submit that their inference from our data that sleep apnea protects against death during sleep is perhaps far reaching and obviously not intended to be embraced seriously. The underlying illnesses of control patients in our study who died in their sleep (severe COPD, hypertension, and CVA) easily provided us with plausible pathophysiologic and epidemiologic explanations for their nocturnal deaths. The higher incidence of cardiac arrhythmias and hypoxemia observed in our apnea patients might have also provided plausible etiologic explanations for their deaths had some of them died in their sleep, but the fact of the matter is that none did. In our study, we were fortunate to have good documentation of the approximate time of death in all patients. For the majority of cases this was ascertained by questioning family members or treating physicians rather than from estimates time of death from death certificates which, as is well-known, can be a major confounding source of error in epidemiologic studies which examine time of death.1 We do not feel, therefore, that misclassification of time or sleep state (as they suggest) could have accounted for the findings in our study.

One study referred to (by He et al) showed a decreased mortality in a set of younger apnea patients who were treated with either tracheostomy or nasal CPAP over untreated apnea patients. The data in this excellent study did not address whether people with obstructive sleep apnea have a greater risk of dying than people without it, as Schmidt-Nowara and Coultas imply this study so convincingly did. The more recent study by Partinen and co-workers, however, did approach this issue by comparing five-year survival of untreated vs tracheostomy treated apnea patients with