percent. Therefore, the use of pH paper to predict a gastric pH of <4 is of questionable validity. The reason for this discrepancy was not readily apparent but may have been due to the inhomogeneous mixture of gastric juice (e.g., mucus, protein, acid, bile, etc.). Given this information, our data suggest that the results of any study using pH paper as a determinant of true gastric pH may be inaccurate.

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To the Editor:

To reply to the criticism of Drs Dobkin and Yeston, we first note that it is based on a previously published report by them and others,1 which concluded that pH paper lacks clinical accuracy in guiding prophylaxis for stress gastritis and that reliance on its use would lead to a significant incidence of undertreatment. In two other studies, however, intragastric pH monitored continuously with an indwelling intragastric pH probe correlated well with that determined by using pH paper, the correlation coefficients in these studies ranging from 0.71 to 0.95.2 These values agree with our data showing a correlation of 0.98.2 Interestingly, intragastric pH determined continuously with a disposable sensor did not correlate as well with gastric pH determined by aspiration and a calibrated laboratory pH meter (r = 0.68).4

The discrepancy in pH determination between a standard laboratory pH meter and paper indicator that Dobkin et al4 reported is due to the time course of the testing. Although pH was determined by paper immediately after gastric samples were collected, samples for pH electrode measurement were analyzed after a delay of 24 to 36 h. Surely, within this interval, various components of gastric juice would have degraded and decomposed, which would have influenced pH (a pH change of ~0.06 to 0.38 at 24 h was reported). Also, none of their patients suffered any detectable gastrointestinal hemorrhage (possibly a reflection of the effectiveness of prophylaxis?) even though sensitivity was 66.7 percent and episodes of "undertreatment" occurred in 63 percent of patients when the paper indicator was used to guide therapy.

In this case, the clinical relevance of a statistically significant difference is questionable. Although analysis of gastric pH with a pH electrode serves as the "gold standard," recent data showed wider variability in readings from a continuous intragastric electrode than from a standard laboratory pH meter. Which one, then, is the "gold standard"? Presently, the standard clinical practice in determining gastric pH as a guide to prophylaxis and therapy is still pH paper. Unless further studies show its use to be obsolete, and until the question of which pH electrode (continuous versus intermittent) is more accurate is answered, it is premature to discount the paper indicator as a reliable method for determining gastric pH.

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Diffusion Capacity in Tropical Eosinophilia

To the Editor:

I read with interest the report on diffusion capacity (Dco) in tropical eosinophilia (TE) by Mann and Heurch,5 which appeared in the March 1991 issue of Chest. I agree with the findings that there is impaired Dco in TE and that Dco improves with diethylcarbamazine therapy. However, the authors make the following statement: "To our knowledge, this is the first report documenting the diffusion defect of tropical eosinophilia and its response to therapy."

I would like to state that a decrease in Dco detected with the steady-state end-tidai sampling method was first reported in 1974 by Poh.6 In addition, we reported in 1988 that the main pulmonary function abnormality in untreated TE is a reduction in single-breath Dco.7 We have also reported that the reduction in single-breath Dco in untreated TE may be due to a reduction in membrane diffusing capacity (Dm).8 In that study we found that following three weeks of treatment with diethylcarbamazine, although there was a significant rise in Dco and Dm, both continued to be significantly lower than those of control subjects. An incomplete reversal of clinical, hematologic, radiologic, and physiologic changes, including single-breath Dco, in TE one month after starting a three-week course of diethylcarbamazine has also been reported by us.9

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