to benefit from tracheostomy. It would be difficult to draw any conclusion on the usefulness of the clinical features for selecting patients for early intubation without reviewing the data from these 40 patients.

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To the Editor:

Our study examined patients with ARDS for clinical features apparent on day 7 of respiratory failure that would predict the need for long-term mechanical ventilation. Forty of 85 ARDS patients were excluded because their early deaths prevented determination of the study end point, which was intubation for more than 14 days.

In examining day 7 data from these 40 patients, we found that 21 were hypotensive while receiving vasopressor medication, with multiorgan failure and sepsis. These patients died between day 7 and day 10 and would not have undergone tracheostomy before death at our institution because of clinical instability. An additional 11 patients were not candidates for tracheostomy because of "do not resuscitate" status ordered in the setting of irreversible coma, advanced age, or malignancy. Four patients had total skin surface burns and appeared terminal according to the clinicians' notes by day 7. Two additional patients died suddenly of unknown causes during the second week of respiratory failure; on the basis of the day 7 clinical features, they appeared to be improving and would have received continued translaryngeal intubation. The remaining two patients might have undergone tracheostomy on the basis of the day 7 criteria because of severity of respiratory failure. These patients, however, died of intractable sepsis on days 12 and 13, respectively; it is not clear from the records that tracheostomy would have been advantageous or deleterious to their courses.

In considering these data, one should recognize that many ARDS patients with courses sufficiently protracted to warrant consideration for tracheostomy will subsequently die regardless of the timing of the procedure. Indeed, in our study only four of the 11 patients who underwent tracheostomy survived their hospitalization even though surgery was performed 7 to 51 days (mean, 20.6 ± 3.4 days) after intubation. Delaying tracheostomy, therefore, is no guarantee that patients with a high probability of survival will be selected.

We continue to conclude that patients can benefit from tracheostomy performed in a more timely fashion rather than waiting for 14 to 21 days of respiratory failure. Our study demonstrated that the presence of severe pulmonary dysfunction after 7 days of care identifies patients likely to require long-term mechanical ventilation. The decision to perform tracheostomy, however, should be guided— as with any surgical procedure— by the patient's prognosis, general clinical stability, and ability to benefit from the potential advantages of the procedure.

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Control Roentgenography after Fiberoptic Bronchoscopy

To the Editor:

We have read the report by Milam et al about the usefulness of an immediately postbronchoscopy roentgenogram as a control at the end of a fiberoptic bronchoscopy (FOB).1 The authors conclude that early roentgenographic examination does not detect complications that are not suspected clinically, and suggest the convenience of taking a chest roentgenogram several hours afterwards to rule out the existence of a pneumothorax in certain groups of patients, especially in those who are outpatients.

We consider FOB a simple and safe procedure, with low morbidity and exceptionally low mortality. A control roentgenogram is not routinely taken in our daily clinical practice after finishing a FOB in which no samples have been obtained by means of transbronchial lung biopsy (TBB) or transbronchial needle biopsy.

To evaluate FOB safety in outpatients, we have carried out a prospective study of 184 FOB procedures with TBB. A chest roentgenogram was taken at the end of several hours of observation. Chest pain was found on 15 occasions (8 percent) and pneumothorax on two (1.1 percent), associated in one case with chest pain. In both cases the aforementioned complications were not detected by immediate fluoroscopy control. The sensitivity of the existence of the chest pain for the presence of pneumothorax was 50 percent, and the absence of chest pain had a specificity of 92 percent.

In accordance with our results and those of other authors,2 we consider that nonidentification of pneumothorax in fluoroscopy control performed after finishing FOB does not rule out its ultimate presentation or other complications. We do not consider the presence of chest pain during the TBB procedure a very sensitive symptom of the existence of pneumothorax. Like Milam et al,1 we consider taking a chest roentgenogram at the end of several hours of observation useful in outpatients who have undergone TBB, even when the patients are found to be clinically asymptomatic.

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Bronchodilating Effect of Intravenous Magnesium Sulfate

To the Editor:

We read with great interest the article by Noppen et al, "Bronchodilating effect of intravenous magnesium sulfate in acute severe bronchial asthma" (Chest 1990; 97:373-76). In our previous double-blind crossover study1 on the effect of intravenous magnesium sulfate (2 g in 20 min, 0.40 mmol/min) vs saline infusion on airway obstruction in ten asthmatic patients (baseline FEV1, 44.5% ± 14.6 SD percent of predicted), we found a mild (9 percent) significant but short-lasting, increase in FEV1. Starting from 15 min after the end of infusion and for the following 2½ h, FEV1 values after magnesium infusion were not different from FEV1 values obtained after saline infusion, even though serum magnesium levels were still elevated. A similar short-lasting bronchodilating effect of magnesium infusion was observed by Okayama et al.2

Reference: