REFERENCES

To the Editor:

The comments of deGracia and colleagues are appreciated. As cited in their correspondence, the experience with diagnosis of tuberculosis by bronchoscopy may be different in other countries in contrast to that of the US. Our experience with fiberoptic bronchoscopy in patients with hemoptysis and a nonlocalizing chest roentgenogram reflects the experience in Rochester, New York; few cases of tuberculosis were discovered. In countries where the prevalence of tuberculosis is greater, more cases would be found. We point out, however, that weight loss, cough, anemia and persistent wheezing are additional indications for the procedure. These clinical features are not unusual in tuberculous disease and might have identified the two patients referred to by deGracia et al who did not meet our other criteria.

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REFERENCE

Erratum

To the Editor:

On behalf of my coauthors I would like to point out two errors made in the Chest editorial office in our article “Significance of T-Wave Pseudonormalization during Exercise” (Chest 1988; 94:512) [September]. We wish to point out that the upper and lower portions of Figure 1 (page 513) should be transposed and that reprint requests should be addressed to Dr. Oh at the Mayo Clinic, Rochester, Minnesota 55905.

Carl J. Lacie, M.D.,
Rochester, Minnesota

Minimal PEEP May Be “Best PEEP”

To the Editor:

We are dismayed by the article of Carroll et al (“Minimal Positive End-expiratory Pressure (PEEP) May Be “Best PEEP””, Chest 1988; 93:1020-25). The authors are to be commended for their good intentions and hypothesis; however, they have failed in methodology due to the selection of heterogenous patient groups, dangerous end points to give therapy (confirmed by the high incidence of complications), and inadequate hemodynamic monitoring and therapeutic interventions. Severe hypotension in 55 percent of the elective PEEP group indicates that either this group was extremely sick or the therapy was harmful. In addition, some of the authors’ statements deserve comments.

1) "PEEP hastens pulmonary recovery." This has not been proven. Pulmonary hypoxemia is secondary to infection, biochemical mediators, etc. PEEP—a mechanical device—is unlikely to reverse biochemical changes. Adequate level of PEEP should be used to lower Fio2 to a nontoxic range, while maintaining adequate oxygenation.

2) "Patients with hypoxemia, due to atelectasis or unilateral lung disease, must be treated with very high PEEP." This is erroneous. Atelectasis may resolve faster with chest physiotherapy, postural drainage and bronchoscopy. Hyperexpansion of normal lung and increased pulmonary barotrauma is likely to occur in unilateral lung disease if high PEEP is used. If hypoxemia persists, high frequency ventilation or jet ventilation may be a preferred technique.

3) "Highest PaO2 is the best indicator of titrating PEEP." Suter et al showed that the highest PaO2 is a poor, unreliable indicator for adjusting "best PEEP." Continual improvement in PaO2 and a decrease in intrapulmonary shunt will occur with increasing PEEP beyond "best PEEP" at the cost of reduced cardiac output and O2 delivery. Various studies have demonstrated that oxygen consumption depends on DO2 in the critically ill patient. Hence, the latter is more important than achieving very high PaO2.

4) "Increased mortality in the elective PEEP group was due to PEEP." This conclusion reminds us of a famous quote: "Statistics should be used as the drunken man uses the lamp post, for the support, rather than illumination." The authors’ data shows that inhospital mortality in both groups was statistically insignificant (19 vs 15). How can they blame elective PEEP for these deaths when autopsy revealed persistent sepsis?

We agree with Civetta that this poorly-conducted study will be misinterpreted and that, until a well designed study proves that PEEP used wisely is harmful or not beneficial in hypoxicemic patients with ARDS, we will continue to use it in order to bring Fio2 to a nontoxic level, while keeping in mind that normalization of oxygen delivery and tissue oxygen utilization are the important end points.

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Franklin Schiebel, M.D., and
Luis Teba, M.D.,
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Morgantown

REFERENCES
1 Carroll GC, Tuman KJ, Braverman B, et al. Minimal positive end-expiratory pressure (PEEP) may be "best PEEP". Chest 1988; 93:1020-25

To the Editor:

We are pleased that our paper stimulated Drs. Dedhia, Schiebel and Teba to comment on our study. However, we do take issue with their reading of our paper.

First, they object to our alleged statement that "PEEP hastens