abnormalities. However, it is likely, both from a theoretical point of view and from model studies, that the build-up of intrinsic positive end-expiratory pressure (PEEP) and increase in regional end-expiratory lung volume (EELV) is greatest in slow lung units (highest compliance and/or highest resistance).2 Conversely, lung units with low compliance and/or low resistance (fast lung units) develop the lowest levels of PEEPs and EELV. Thus, PEEPs may cause overinflation of normal lung and a relative underinflation of fast lung units. This property of PEEPs has been proposed to explain the failure of PCIRV to increase PaO2 despite a marked increase in mean airway pressure.2,3

Several studies have documented an improved CO2 clearance with PCIRV,4 and it would be interesting to compare PCIRV with conventional ventilation at equal levels of alveolar ventilation. In the present study, we decided to keep tidal volume and PEEP constant since both these variables are known to influence lung clearance.

A study of lung clearance during PCIRV in oleic acid-induced lung injury is underway.

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Using Corticosteroids to Treat Tuberculous Pleurisy

To the Editor:

We read with interest the report in CHEST by Wyser et al (August 1996) concerning the use of corticosteroids in the treatment of tuberculous (TB) pleurisy. We would like to comment on the article.

First of all, we regret to read in the introduction: "...to our knowledge, no other placebo-controlled studies that examine this form of treatment have been published." We have recently published the results of a large prospective, double-blind, placebo-controlled, and randomized trial of corticosteroids in the treatment of this disease.2

The overall design of both studies is similar, but with some relevant differences in the methodology: (1) we use needle biopsy for obtaining specimens of pleura (instead of thoracoscopy), with simultaneous partial drainage of the effusion by needle thoracocentesis (no tube drainage); (2) we use a two-drug regimen for 6 months as treatment of the pleurisy, and (3) we use a steroid treatment starting with a dose of 1 mg/kg/day, gradually tapered until completing 1 month of corticosteroids; Wyser and colleagues start with 0.75 mg/day for 1 month and then taper off, completing 8 weeks of treatment.

Our aim in draining the pleural cavity was to equalize, in both groups—placebo and steroids, the volume of liquid to be reabsorbed as a result of drug therapy.

In both studies, the evolution of the clinical, radiologic, and functional parameters showed similar comparative results in both groups of patients, with no statistically significant differences. The rapidly favorable clinical changes observed after the complete drainage of the pleural cavity in both groups even before randomization in the study of Wyser and colleagues are to be expected (particularly concerning dyspnea, chest pain); but we would not normally submit our patients with TB pleurisy to a thoracoscopy followed by a 2-day tube drainage.

Furthermore, in comparison with the control group, the patients treated with steroids by Wyser and colleagues showed a more rapid clinical recovery according to the visual analog scale (VAS) score. We believe that this statistically significant difference may be related to the effect of steroids in three of the seven parameters selected in the VAS: tiredness, appetite, and well-being. We have also observed that those patients treated with steroids showed a more rapid decline of fever, but the difference was not statistically significant. At the same time in the study of Wyser and colleagues, 44% of the patients in the placebo group and 21.2% in the steroid group showed pulmonary involvement. This difference could also determine a more slowly clinical evolution in the placebo group, because as the authors remark, pulmonary changes resolve more slowly than the pleural ones.

The authors state that the factor responsible for symptomatic improvement in all patients was the complete early drainage of the effusion at the time of the thoracoscopy. The good results that we have observed in our study in all the patients, treated with steroids or not, support the view that a complete drainage of the effusion is not a sine qua non for a good result in the treatment of TB pleurisy.

According to our results, we support the view that: (1) the good outcome of TB pleurisy is mainly due to the effect of an effective (two- or three-drug regimen) antituberculous therapy, and that (2) a complete drainage of the pleural cavity is not necessary.

Finally, we would like to confirm that after a 1-year follow-up neither fibrothorax nor recurrence of pulmonary TB have occurred in our series, so that we can answer to the last statement of the article of Wyser and colleagues that early drainage is not superior to no (or minimal) drainage in the long-term outcome of TB pleurisy.

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CHEST / 112 / 1 / JULY, 1997 291