To the Editor:

We are pleased that our report (Chest 1984; 85:837-38) has prompted pulmonologists interested in fiberoptic bronchoscopy to describe experiences of a similar nature. Weisberg's report regarding the breakage of Pilling foreign body grasping forceps during rigid bronchoscopy is somewhat comparable to our experience, though the two mishaps occurred under different circumstances.

The "intrinsic metal defect" suggested by Masa-Jimenez et al warrants consideration, although in our experience one biopsy forceps head broke after only ten procedures, while the other two had already been used in a number of biopsies before breaking. Therefore, while metal fatigue and possible mechanical malfunction of the delicate biopsy heads cannot be ruled out, other factors as reported by us need some consideration.

Occasional reporting of such accidents keep the practicing physician on the alert. The preventive steps suggested by Weissberg in the care of delicate biopsy heads are, certainly, routinely followed by all bronchoscopists. At any rate, the re-emphasis is timely.

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Acute Pulmonary Fibrosis Associated with Respiratory Failure

To the Editor:

The recent study on lung collagen amounts after prolonged support of acute respiratory failure (Chest 1984; 85:641-46) reported a wide variation in collagen contents in the patients. Thus, the patient collective was arbitrarily divided into two groups, one having high collagen contents, the other showing a lower level of collagen. Using sophisticated statistical methods, the impression arose that the inspired high oxygen concentration and prolonged elevated levels of end-expiratory pressure caused the collagen accumulation in the high collagen group.

Although it was stated in the discussion that "clinical data did not prove the hypothesis that...the increased collagen group had a more severe lung injury requiring more intense treatment", the reader can get the opinion that the high collagen group was more severely affected than those patients with normal collagen amounts. The oxygenation especially (PaO_2/FiO_2) was "significantly worse in the increased collagen group than in the normal collagen group". One important indicator for lung injury and its severity, the extravascular lung water (EVLW), which may have been helpful for the definition of onset and severity of lung injury in the patients, was not presented. Furthermore, the collagen content results may have been influenced in some of the patients by advanced age, as age-related changes occur in the lung connective tissue composition. As in diseases like cirrhosis, leukemia or pneumonia, the exact onset of the lung injury is often not clearly definable. Thus, in some of the cases it may be extremely difficult to establish a clear-cut time frame for the tissue changes. Recently, we conducted a similar study on methodically selected, young patients with clearly defined severe post-traumatic respiratory distress and a pattern of structural and functional changes, including initial interstitial edema. We found several changes similar to those in the study mentioned before, including a lack of increase in collagen contents in the first two weeks of survival and increases in other tissue components parallel to collagen increase. In contrast to their observations, we found, in all our patients surviving for more than two weeks, increases in the collagen contents, as also reported by Zapol and co-workers.

Thus, we feel that in severely affected patients pulmonary fibrosis may develop more readily. Since severe lung injury, high inspired oxygen concentrations and barotrauma are interdependent, it seems impossible at the present stage to distinguish the effects of the underlying lung injury and the subsequent therapy.

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REFERENCES


To the Editor:

We agree that at this stage it is not possible to definitely "distinguish the effects of the underlying lung injury and the subsequent therapy". Unfortunately, we do not have measurements of extravascular lung water in our patients.

In regard to age-related changes, the work by Johnson and Andrews used percentages of collagen and elastin, not absolute amounts, and showed a decreased percent collagen with age. In the accompanying figure, we have calculated collagen contents per left lower lobe and superimposed the data of Nerlich et al, assuming that the left lower lobe is 25 percent of the entire lung, on the data from our patients who spent more than 14 days on the ventilator. Because of the way they expressed their data, it is difficult to calculate means ± SD for their controls. However, their patients in the time span of 14 to 19 days (subjects 4 through 8) appear within the control range and intermediate between our increased and normal collagen patients. The last two patients (10 and 11) appear to definitely increase. Based on this analysis, their statement that "we found, in all our patients surviving for more than two weeks, increases in the collagen contents" is questionable.

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Usefulness of FEF25-75% and FEF200-1200 for the Graphic/computational Interpretation of Spirometry

To the Editor:

We would like to comment on some of the points raised by H. M. Thomas and R. C. Garrett (Chest 1984; 86:129-31) on the basis of our