To the Editor:

The mathematical analysis made by Dr. Harber is an interesting one and we believe it generally supports the conclusions in our study. Certainly, his calculations support the recommendation to obtain ten biopsies in those with stage I disease. As indicated in our article, we suggested five biopsies might well be enough in those with stage II or III disease, and indeed his data would support this if one aims for a diagnostic rate of 98 percent. It is of interest that previous studies1-4 utilizing three or four biopsies have shown an accuracy of 84 percent and 83 percent in stage II and III, respectively, which is slightly less than the 92 to 98 percent predicted by Dr. Harber's analysis. It may well be the extent of involvement may vary considerably in those with parenchymal abnormalities on chest film, and this might explain the discrepancy between that predicted on the basis of our data and the actual results in those studies which utilized three or four biopsies.

Regarding the comments by Drs. Pinsker and Kamholz, it would indeed have been helpful had we sequentially numbered each biopsy specimen. This would have allowed possible confirmation of Dr. Harber's mathematical analysis. However, Drs. Pinsker and Kamholz's suggestion that the specimens be studied by subsegments of each lobe is impractical. To have statistically significant comparisons between the various subsegments, a very large number of biopsies would have been required. Furthermore, our study was meant to provide practical information to the pulmonary physician, and a study which would lead to recommendations that only certain subsegments be biopsied would not be very helpful. As to the adequacy of specimens, from a practical standpoint, this judgment must be made by the gross appearance of the biopsy material at the time of the procedure as an accurate description of the amount of alveolar tissue can only be obtained hours later in the pathology laboratory. Concerning the adequacy of specimens obtained by us as compared to other investigators, using Dr. Harber's table one can see that the percentage of positives he predicted for our first three to four biopsies equaled or exceeded that actually attained in previously published series which utilized that number of biopsies.

On the basis of their unpublished data, Drs. Pinsker and Kamholz claim a success rate of 97 percent with only "three to four" biopsies. They do not comment on the stage of disease in their patients. Their results contrast with the four previous studies quoted in our article where positive results were noted in 76 percent after three to four biopsies.1-4 A very recently published series of 42 patients in which four to eight biopsies were obtained yielded positive biopsies in 88 percent of the patients.5 Therefore, on the basis of the peer-reviewed published data which are available for detailed comparison, we still conclude that ten biopsies are reasonable in stage I disease if one wishes to make the diagnosis in a high percentage of patients. The extra biopsies add little to the length of the procedure when done by a skilled endoscopist. Furthermore, our lack of complications is not unique, as Koontz6 has stated that pneumothorax should occur in less than 1 percent of transbronchoscopic biopsies if the procedure is done under fluoroscopic control.

Col Richard B. Byrd, MC, USAF, F.C.C.P.,
Scott AFB, Illinois;
Robert A. Roethe, M.D., Fullerton, California;
Lt Col David R. Hafermann, MC, USAF, Scott AFB, Illinois;
Lt Col Philip B. Fuller, MC, USAF,
Travis AFB, California

References


The Charcoal Heart

To the Editor:

I certainly enjoyed reading the article on the "charcoal heart" that appeared in Chest in May of this year. I would like to call attention to the electrocardiogram that was illustrated. I am sure the authors would agree that this does not show a sinus tachycardia since the rate is about 88, there is no evidence of low voltage, and I question the presence of nonspecific STT and T wave abnormalities. Perhaps the journal used the wrong electrocardiogram to illustrate. I have been the victim of such circumstances myself.

Benjamin M. Kaplan, M.D., F.C.C.P.
Chicago

To the Editor:

Dr. Kaplan is certainly correct in pointing out that the description of the electrocardiogram has nothing to do with the electrocardiogram published. We rechecked the records and unfortunately sent the wrong electrocardiogram. The electrocardiogram which we intended to send and which is compatible to the description published is shown here. The error was entirely ours.

William C. Roberts, M.D., F.C.C.P.
Chief, Pathology Branch,
National Heart, Lung, and Blood Institute, Bethesda

![Electrocardiogram](http://journal.publications.chestnet.org/pdfaccess.ashx?url=/data/journals/chest/21186/)

**Figure 2.** Electrocardiogram obtained two months before death shows sinus tachycardia, nonspecific changes in S-T segments and T waves, and low voltages.

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