Use of Fiberoptic Bronchoscopy in the Diagnosis of Pleural Effusions

To the Editor:

We read with interest in the June 1994 issue of CHEST the article by R.H. Poe and colleagues (CHEST 1994; 105:1663-67) in which the authors suggest that fiberoptic bronchoscopy (FOB) is useful in diagnosing bronchogenic carcinoma in patients when there is hemoptysis, accompanying lung mass or infiltrate, atelectasis, massive effusion, or in cytology positive effusions without obvious primary tumor.

We reviewed our experience with 208 patients (3:1, male to female ratio with mean age 59±13 SD year) with pleural effusions (PE) who underwent FOB to identify those for whom the procedure was useful. Patients with nondiagnostic PE qualifying for the study were classified into two groups: (1) those with simply the isolated finding of PE (102/208=49%); and (2) those whose initial chest roentgenogram showed PE and accompanying features, eg, a lung mass, infiltrate on the chest, cavitary lesion, or atelectasis (106/208=51%).

The diagnosis was bronchogenic carcinoma in 60 patients (28.8%), metastatic tumor, other than lung, in 37 patients (17.7%), parapneumonic effusion in 29 patients (13.9%), tuberculosis in 25 patients (12%), pleuropneumonia in 21 patients (10%), pneumothorax in 10 patients (4.8%), no diagnosis in 10 patients (4.8%), and other causes in 14 patients (6.7%).

We established the final cause with FOB in 61 of 208 patients (29%). The diagnostic yield in the first group, those with simply finding of PE, was 2.8% (6/102) and 26.4% (55/106 patients) in the second group (PE and accompanying roentgenograms features) (p<0.001). FOB showed less diagnostic merit in the patients who had no hemoptysis (44/179). The diagnostic yield in those patients who presented with hemoptysis, however, was 58.6% (17/29), p<0.001. Bronchogenic carcinoma was the main cause of malignant PE in this series, and the diagnostic yield in such patients was 87% (53/60). Chang and Peng1 reported similar results about the role of FOB in evaluating the causes of PE.

We conclude and confirm the efficacy of FOB in those patients with PE when there is hemoptysis or other roentgenograms features such as lung mass, infiltrate, cavitary lesion, and atelectasis, although this study and another2 suggest that FOB in the absence of these indications is low and should not be routinely used.

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To the Editor:

We appreciate the letter of Gámez and colleagues describing additional experience with fiberoptic bronchoscopy (FOB) in the diagnosis of pleural effusions in a relatively large number of patients. These investigators' observations were similar to ours. Although the diagnostic yields stated in the third paragraph are miscalculated (6/102 is 6% and 55/106 is 52%) for isolated pleural effusions and those with accompanying roentgenographic abnormalities respectively, the results compare favorably with the 12 and 50% in our study. Similar observations were recorded for patients with hemoptysis (59 vs 50% for the two studies). Our colleagues from Spain add further confirmation for a limited role for FOB in patients with pleural effusion alone.

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