of T-cells bearing interleukin-2 receptor (Tac cells) in the peripheral blood and BAL fluids only in patients with active pulmonary tuberculosis.

Since both ADA activity and T-cells bearing IL2 receptor are evidence of T-lymphocyte activation, both parameters may be used as indicators of a recent or currently active immunopathologic process in patients with pulmonary tuberculosis. In this regard, the conclusions of both studies adduce the same implications.

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However, the material used was considerably different in the two studies despite the overlapping etiologies—pleural tuberculosis and neoplastic effusions in our group and bronchial carcinoma and pulmonary tuberculosis in the work by Bovornkitti et al. The aim of our work was essentially the study of ADA and lymphocyte populations in pleural effusions and in peripheral blood, while Bovornkitti et al studied those factors in the peripheral blood and BAL fluids.

Our group investigated the eventual correlations between variations in ADA activity and lymphocyte populations in pleural tuberculous effusions (without parenchymatous pathologic changes) and in neoplasms (bronchogenic squamous cell carcinoma and adenocarcinoma), not specifically the function of the degree of pleuropulmonary involvement by the tuberculous process or the histologic type of the tumors. Thus, the local activity of ADA and its correlation with the lymphocyte populations in the two studies was examined in different areas—the pleura and the bronchopulmonary structure. As a matter of fact, the differences observed in the local immunologic interventional capacity because of the existence or absence of immunologic structures, possibly due to local sequestration of immunocompetent cells with or without peripheral depletion, and major or minor cellular dynamic difficulties in these two areas may represent, among other factors, important conditioning factors of distinct immunologic responses in a given compartment. Therefore, these differences in the two studies may explain the variations detected in the findings. Our work was concerned with the lymphocyte populations CD4 and CD8, not only locally in immunologically different areas but also in the peripheral blood, on account of the eventual blood repercussions resulting from the local changes.

Finally, I was very interested in the correlation detected by Bovornkitti et al between the increase in ADA activity and the rate of occurrence of T-cells bearing interleukin-2 (Tac cells) not only in BAL fluids but also in peripheral blood in patients with tuberculosis, which seems to point in a parallel way to the conclusions of our group concerning the correlation of ADA activity and the CD4 lymphocyte population.

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Pleuroscopy—An Underestimated Diagnostic Procedure in Pleural Effusion

We were pleased and interested to hear about the study by Bovornkitti et al. Both their work and ours are in the same area of investigation, ADA activity and lymphocyte populations in patients with tuberculosis and bronchogenic carcinoma.

To the Editor:

The special report by Smyrnios, Jederlinic and Irwin (Chest 1990; 97:192-96) analyzed the etiologies of asymptomatic pleural effusions, compared them with those of symptomatic effusions, and concluded that the same diseases that cause symptomatic effusions can cause asymptomatic ones. They propose a diagnostic algorithm that includes one simple thoracentesis, two thoracenteses with closed pleural biopsy, and, if there is no diagnosis, an open pleural biopsy in unstable effusions. Pleuroscopy is not even considered and the comment and single reference cited1 in the discussion of their report are very unfortunate. Fauraou et al2 do not elaborate at all on the diagnostic yield of pleuroscopy in their article; the aim of their study, based on eight patients, was to determine the influence of the procedure on respiration, blood gases, and heart rhythm. Therefore, the statement of Smyrnios et al that the advantage of

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pleuroscopy "over conventional means of diagnosis is unclear" is virtually impossible to draw from the paper of Faurshou et al. Pleuroscopy deserves, indeed, more attention.

Since 1910,2 pleuroscopy has been widely used, mainly in Europe, as a diagnostic and therapeutic procedure. Its diagnostic yield in pleural effusion is close to 100 percent.3-6 Pleuroscopy is usually performed with the use of local anesthesia and, although it requires hospitalization, has several advantages over closed pleural biopsy: (1) It allows examination of the pleural cavity, including the costal pleura, the diaphragmatic dome, the cardiophrenic and costophrenic angles, the lung surface and fissural aspects of the lobes, and the mediastinal pleura. (2) Pleural biopsies can be taken at multiple sites under visual control. (3) Lung biopsies can be taken easily.7-9 (4) Instillation of sclerosing agents for chemical pleurodesis10 can be done at the end of the procedure if a frozen-section biopsy yields a positive result for malignancy. Complications of pleuroscopy, such as subcutaneous emphysema, shortness of breath, and arrhythmias, are observed in less than 10 percent of the patients.10 Mortality is minimal: only one death was found in a review of approximately 8,000 diagnostic pleuroscopic procedures.11

We believe that, if the same diseases can cause both symptomatic and asymptomatic pleural effusions (as Smyrnios et al concluded), a more active diagnostic workup should be established, especially to rule out malignancy and tuberculosis. Therefore, pleuroscopy—which is clearly superior to repeated pleural fluid cytology and blind pleural biopsies—should be considered when a thoracentesis with closed pleural biopsy has not been diagnostic and the probable cause of the effusion is not clinically apparent.

To the Editor:

We read with interest the letter by Rami-Porta et al concerning the limited discussion of pleuroscopy in our recent special report on the evaluation of asymptomatic pleural effusion. Our bias in favor of a second closed biopsy stems from our own limited experience with pleuroscopy and the less-than-definitive literature on the comparative usefulness of pleuroscopy. We disagree with the statement that pleuroscopy has been "widely used" since 1910. Most studies of pleuroscopy are retrospective series in which the diagnostic yields of thoracentesis and closed pleural biopsy have not been compared with pleuroscopy in a formal way.12,13 However, Boutin et al employed a more systematic analysis of the sensitivity of these different methods and found that pleuroscopy resulted in 84 percent positive results in 75 patients with malignant pleural effusion who had three previous negative cytologic and two previous negative needle biopsy results.

There is little doubt that the procedure can be useful for some indications, as noted by Rami-Porta et al. To these we would also add its use to avoid unnecessary thoracotomy and when tube thoracostomy will be required anyway. On the other hand, negative aspects of pleuroscopy include the need for an average hospitalization of three to four days, which is an important consideration these days.14 General anesthesia is used by some advocates, with its associated risk.15 There is also the morbidity associated with the need for prolonged chest tube drainage after the procedure. Complications reported include hemorrhage, subcutaneous emphysema, bronchopleural fistula, tumor seeding, persistent pneumothorax, and death. However, the frequency of complications is less than that seen with open pleural biopsy or open lung biopsy, a point in favor of pleuroscopy.

We agree that the use of pleuroscopy in select cases with local anesthesia can be helpful in evaluating the cause of pleural effusion. A more widespread role can be defined only by prospective studies comparing its risks and benefits with those of other diagnostic studies.

References


Occurrence of Mitral Valve Prolapse in Nonsmoker Spontaneous Pneumothorax Patients

To the Editor:

Margalit et al found mitral valve prolapse (MVP) in 11 of 22 (50 percent) patients who suffered spontaneous pneumothorax (SP) but in only 10 percent (four of 40) of the control subjects. They concluded that the excessive occurrence of MVP is the first documented proof of connective tissue disease, an underlying factor in the development of SP.

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