Legal Issues in Cardiopulmonary Medicine

To the Editor:

Practicing cardiopulmonary physicians have numerous concerns. One major issue that has not been addressed by the ACCP is legal questions and concerns involving professional liability. Although there seems to be a widespread feeling among our membership that something should be done about the medical malpractice dilemma, there are no data on which to make intelligent observations or sound recommendations.

For most doctors, the concern seems to be a spiralling malpractice premium that increases almost yearly. Yet another concern is the expanding interpretation of tort liability by the courts of this nation. For example, a New York court recently found a psychiatrist liable for having had sex with a former patient.1

A very recent survey by the American College of Obstetricians and Gynecologists found that more than 70 percent of all responding OB-GYN specialists had at least one lawsuit filed against them in their professional careers. Twenty-five percent had been sued three or more times.4 Fifty-two percent involved obstetrics; 48 percent of the claims involved gynecology with an average payout of $64,000. Many of these claims involved the failure to diagnose simple early breast cancer.

It is this author's impression that the majority of claims in cardiopulmonary medicine/surgery would arise from the following: 1) interventional procedures that can only be described as "legally risky behavior"; 2) misdiagnosed and mismanaged pulmonary emboli; 3) major cardiothoracic injuries during surgery; or 4) issues in lung cancer. But only reliable data could confirm or negate this impression.

It would also be useful to assess by questionnaire the extent of the malpractice problem that affects cardiopulmonary physicians, and if in the area of occupational lung disease there is equal compensation for equal disability, or whether the present tedium, time-consuming, expensive, and unjust litigation for occupational lung disease should continue.5

A recent New York Times article indicated that medical malpractice has become a $4 billion industry and can have severe psychological affects on the physician.

It is my opinion that a questionnaire on the legal aspects of medical practice would be most useful.

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1 Judge finds psychiatrist liable for sex with a former patient. The

New York Doctor, April, 1989


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Prevention of Recurrent Pulmonary Embolism

To the Editor:

In a recent paper we reported our experience with heparin therapy in patients with venous thromboembolism.1 In our series, early recurrences were seen in seven of 36 patients (18.4 percent) with an original diagnosis of pulmonary embolism (PE), and in five of 83 patients (6 percent) with deep venous thrombosis (DVT) of lower limbs. Theoretically, higher doses of heparin would have decreased this recurrence rate, but also the risk of bleeding strongly correlates with the mean total daily dose of heparin.

Several years ago, Sullivan et al. demonstrated that adding dipyridamole to warfarin in patients with mechanical valve prostheses may confer additional benefit without a higher bleeding rate. Since then, several authors have recommended the combination of anticoagulants and dipyridamole in preventing arterial thromboembolism.2 3 In order to investigate whether combined dipyridamole heparin therapy would be safe and effective, we performed a prospective, double-blind randomized study in patients with venous thromboembolism. The main objective was to determine whether the risk of recurrence of PE associated with heparin therapy could be reduced, but without a greater risk of bleeding.

Since January, 1988, 93 patients were diagnosed with acute venous thromboembolism in our hospital. Only those patients being treated for other causes or having an acute course of heparin therapy were included; therefore 11 of these patients were not included (because of clinically massive PE in three; recent intervention in three; thrombocytopenia in two; previous bleeding in two; hematoma in one patient). Additionally, another seven patients were excluded after randomization: four patients with PE because they refused venography, three because of technical reasons.

A total of 75 patients entered into the study: 37 men and 38 women, aged 21 to 84 years, mean 63 y. A total of 14 patients had clinically apparent pulmonary embolism, and 61 patients had deep venous thrombosis on lower limbs. As in the previous study, all patients had objective tests to confirm the diagnosis (conventional venography and ventilation-perfusion lung scan, both baseline and eight days after therapy). In addition to heparin (also in the same

Table—Baseline Characteristics, and Results of the Double-blind Trial

<table>
<thead>
<tr>
<th>Heparin + dipyridamole</th>
<th>Heparin + placebo</th>
<th>p value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients, number</td>
<td>40</td>
<td>35</td>
</tr>
<tr>
<td>with venous thrombosis</td>
<td>34</td>
<td>27</td>
</tr>
<tr>
<td>with pulmonary embolism</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Age, years (mean ± SD)</td>
<td>63 ± 13</td>
<td>64 ± 17</td>
</tr>
<tr>
<td>Results of the trial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recurrences of PE</td>
<td>4 (10%)</td>
<td>2 (5.7%)</td>
</tr>
<tr>
<td>Bleeding complications</td>
<td>7 (17.5%)</td>
<td>2 (5.7%)</td>
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</tbody>
</table>

*Chi-squared test was used
Pleural, Alveolar and Blood T-Lymphocyte Subsets in Pleuropulmonary Sarcoïdosis

To the Editor:

In two patients with pleuropulmonary sarcoïdosis, T-lymphocyte subsets have been evaluated in peripheral blood, bronchoalveolar lavage and pleural fluids.

A non-smoking man, 34 years of age, with no previous medical history, was referred to our hospital for right paratracheal and bilateral hilar lymph node enlargement and a right pleural effusion detected by routine chest roentgenogram. Usual biologic test results were normal. Serum angiotensin-converting enzyme activity was 135 μmol/min/ml (n<135). Tuberculin skin test was negative. Pulmonary function tests showed a mild restrictive syndrome (VC 63 percent predicted). A fiberoptic bronchoscopy with BAL and bronchial biopsy were performed. Pathologic examination of bronchial biopsy showed typical granulomas without necrosis consistent with sarcoïdosis. Thoracocentesis recovered serosanguineous fluid with protein content of 48 mg/dl; the differential cell count was 1,800 leucocytes/ml with 73 percent lymphocytes. Sputum and pleural cultures for bacterial, fungal or viral infection were negative. No treatment was prescribed and six weeks later a chest x-ray film showed resolution of the pleural effusion.

A 45-year-old man, followed since 1982 for a stage 1 sarcoïdosis with uveitis and treated with corticosteroid-therapy from July, 1982 to September, 1983, was referred to us in April, 1989 for recurrence of bilateral uveitis, diffuse pulmonary infiltrates of nodular pattern and a right pleural effusion. Usual biology was normal. Serum angiotensin-converting enzyme activity was 76 μmol/min/ml. A CT scan of the chest showed subpleural nodules next to pleural thickening and pleural effusion. The pulmonary function tests showed a mixed restrictive and obstructive syndrome (TLC 65 percent, VC 73 percent, FEV 70 percent). Fiberoptic bronchoscopy was normal and a BAL was done. Pleural thoracocentesis yielded clear yellow fluid with protein concentration of 41 mg/dl and 330 leucocytes/ml (72 percent lymphocytes). On corticosteroid therapy, pleural effusion resolved after four weeks.

The lymphocyte subpopulations from both cases in pleural and BAL fluids and blood are shown in Table 1.

In these patients, simultaneous evaluation of lymphocyte populations in pleural effusion, BAL and peripheral blood showed a marked increase in the number of CD4 T-lymphocyte subsets in pleural and BAL fluid, contrasting with a low CD4 T-cell count in peripheral blood.

Table 1—T-Lymphocyte Subsets* in Peripheral Blood, BAL and Pleural Fluid†

<table>
<thead>
<tr>
<th>T-Lymphocyte Subsets</th>
<th>Peripheral blood</th>
<th>BAL fluid</th>
<th>Pleural fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Case 1</td>
<td>Case 2</td>
<td>Case 1</td>
</tr>
<tr>
<td>Total cells (x/mm²)</td>
<td>1,067</td>
<td>1,067</td>
<td>144</td>
</tr>
<tr>
<td>Lymphocytes</td>
<td>770</td>
<td>1,067</td>
<td>65%</td>
</tr>
<tr>
<td>OKT4</td>
<td>188</td>
<td>188</td>
<td>76%</td>
</tr>
<tr>
<td>OKT8</td>
<td>208</td>
<td>427</td>
<td>12%</td>
</tr>
<tr>
<td>CD4:CD8 ratio</td>
<td>0.9</td>
<td>0.4</td>
<td>6</td>
</tr>
</tbody>
</table>

*Surface phenotyping of T-lymphocytes was determined by indirect immunofluorescence microscopy using CD4 and CD8 monoclonal antibodies (OKT4 plus OKT4 A and OKT8; Ortho Diagnostics, Raritan, NJ).
†Expressed in absolute numbers in peripheral blood and in percentage of lymphocytes in BAL and pleural fluid.

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4 Miller A, Lees RS. Simultaneous therapy with antiplatelet and anticoagulant drugs in symptomatic cardiovascular disease. Their role. 1985; 665-75