Pulmonary Function Tests in AIDS

To the Editor:

The importance of PFT in the evaluation of AIDS is controversial. Decrease in CO transfer factor by the lungs (TLCosb) can be an early sign of ventilation/perfusion mismatching secondary to pulmonary infection. Nevertheless, the American Thoracic Society (ATS), in its NHLBI workshop summary, recommended that screening for pulmonary disease other than history, physical examination, and chest x-ray examination is not necessary in patients with nonpulmonary manifestations of AIDS or in patients who are HIV-positive but without respiratory complaints. On the other hand, Collier et al1 found low values of TLCosb in HIV-positive homosexuals without pulmonary infection (as it has been previously described in parenteral drug-abusers); this also suggest that TLCosb is useless.

We randomly studied eight of 24 HIV-positive asymptomatic homosexual subjects with generalized lymphadenopathy (GL) and normal chest x-ray film. All were submitted to forced spirometry and TLCosb according ATS criteria, initially and again every six months (or sooner if symptoms suggesting pulmonary infection developed). Results are expressed as a percent of reference values (Table).

Table

<table>
<thead>
<tr>
<th>n</th>
<th>Month</th>
<th>FVC</th>
<th>FEV1</th>
<th>TLCosb</th>
<th>VA</th>
<th>KCO</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>0</td>
<td>102 7</td>
<td>105 8</td>
<td>86 20</td>
<td>107 8</td>
<td>97 7</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>103 8</td>
<td>106 8</td>
<td>83 18</td>
<td>103 9</td>
<td>99 6</td>
</tr>
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There were no significant changes in seven of eight patients after six months. The remaining patient developed fever at the fifth month with a normal chest x-ray film. PFT performed at this time showed a restrictive pattern (FVC 74 percent, FEV1 78 percent) with fall in TLCosb and KCO of 49 and 38 percent, respectively. Bronchoalveolar lavage evidenced Pneumocystis carinii pneumonia.

We conclude: 1) HIV-positive asymptomatic homosexual subjects with GL have normal TLCosb; 2) a decreased TLCosb and/or a restrictive pattern suggest the presence of pulmonary infectious involvement, especially if previous tests were normal; and 3) initial PFT is useful because small changes could force the use of more invasive techniques even with normal x-ray film and mild symptoms.

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References


Erratum

To the Editor:

In a recent article of ours in Chest ("DRG Payment for Long-term Ventilator Patients—Revisited," Chest 1988; 93:629-31), several lines were left out of the first paragraph of the second column of page 630. The end of this paragraph should read: "There were 15 tracheostomy patients who stayed an average of 66.7 days and whose cost per case averaged $92,566, and 89 patients ventilated through an endotracheal tube who had an average length of stay of 18.9 days and an average cost per case of $26,943. Thus, the tracheostomy patients had an average length of stay and cost per case over three times greater than the endotracheal tube patients. The magnitude of the cost difference between the two groups of our patients is similar to that observed by HCFA."

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References