Response

To the Editor:

We thank Dr Aelony for his interest in our recent article in CHEST (June 2010) on the occurrence of lung injury following thoracoscopic talc insufflation (TTI). We did not report on pleurodesis success rate because our goal was to determine the incidence of respiratory complications.

We acknowledge the design limitations of our retrospective study. We carefully assessed all cases of postprocedure respiratory insufficiency. Up to eight subjects may have had talc-related lung injury, but due to atypical features or because an alternate diagnosis was possible, we excluded four cases from the incidence calculation of 2.8%. Dr Aelony correctly notes that radiographic findings may be seen after pleural drainage or simple thoracoscopy. The occurrence of respiratory insufficiency was defined based on symptoms and increased oxygen requirements in addition to radiographic changes.

Dr Aelony states that we are inappropriately referencing two articles as showing complications of talc pleurodesis. Rehse et al. reported the occurrence of ARDS in 9% of patients undergoing talc pleurodesis. He is correct in pointing out that three patients had undergone mechanical pleurodesis followed by poudrage; the other patients received talc slurry. Thus, ARDS was reported following simple talc exposure, albeit after administration as slurry. Dresler et al. reported the results of a randomized trial comparing TTI with talc slurry for malignant pleural effusions. The complications reported included bronchopleural fistula (2% with talc slurry and 2.7% after TTI). Separately, the authors reported that respiratory failure was observed in 4% of patients after talc slurry and 8% following TTI. It is stated that the etiology of the respiratory complications was unclear but consistent with prior reports of respiratory failure following talc administration.

It is interesting that conversations with Bryan Corporation representatives would suggest that the current talc preparation is different from the original one. The four cases of talc-related lung injury we reported occurred in 2001, 2004, and 2007 (two cases). Dr Rodríguez-Panadero (personal communication, October 2009) recently compared Sclerosol (Bryan Corporation; Woburn, Massachusetts) with French-graded talc using laser diffractometer and demonstrated that Sclerosol contains a larger proportion of small particles.

There are ample data from both animal studies and clinical trials to suggest that talc preparations that include small particles are associated with a higher risk of respiratory complications. We are delighted that Dr Aelony second our call for the US Food and Drug Administration to approve European-graded, large-particle talc for pleurodesis, given its established safety record.

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REFERENCES


Low Cytomegalovirus Viremia Prevalence in a General Intensive Care Population

To the Editor:

The prevalence and the clinical significance of the cytomegalovirus (CMV) infection in the immunocompetent ICU patient remain unclear. Conflicting results have been obtained from recent studies.1-6 The aim of our study was to determine the prevalence and the clinical significance of CMV viremia in a general population of immunocompetent adult critical care patients.

This observational study was conducted in our 24-bed, academic medical-surgical ICU from May 2005 to December 2007. The research protocol was approved by the Institutional Ethics Committee. All consecutive nonimmunosuppressed patients with an ICU length of stay >5 days were screened. After 50 patients were seen, inclusion criteria were changed to 10 days after observation of a very low prevalence of CMV viremia. Informed consent was obtained from each patient. Blood samples for CMV serology (IgG and IgM enzyme-linked immunosorbent assay) (Zebus Scientific; Raritan, New Jersey) and serum CMV-polymerase chain reaction (PCR) (Cobas Amplipcr CMV Monitor; Roche Inc; Basel, Switzerland) were collected at study admission and weekly thereafter until the patient was discharged to the ward or for a maximum of 1 month of ICU stay.

The patients’ characteristics are shown in Table 1. Overall, 51% of the patients had a positive serology result for CMV-IgG and 9% for CMV-IgM. Only one patient had a positive PCR analysis after 28 days of ICU stay in the medical unit. No obvious unexplained clinical manifestations potentially related to CMV were detected in the complete cohorts.

Our study demonstrates a very low prevalence of CMV viremia in a nonimmunosuppressed general ICU population even with prolonged length of stay, with only one positive CMV-PCR
Table 1—Patient Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Group A</th>
<th>Group B</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, y</td>
<td>58.0 ± 17.6</td>
<td>46.5 ± 23.0</td>
<td>52.4 ± 21.0</td>
</tr>
<tr>
<td>Length of stay, d</td>
<td>19 ± 43</td>
<td>23 ± 11</td>
<td>20.9 ± 31</td>
</tr>
<tr>
<td>Admission unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>17 (34)</td>
<td>22 (44)</td>
<td>39 (30)</td>
</tr>
<tr>
<td>General Surgery</td>
<td>14 (30)</td>
<td>10 (20)</td>
<td>24 (24)</td>
</tr>
<tr>
<td>Medical</td>
<td>9 (18)</td>
<td>10 (20)</td>
<td>19 (19)</td>
</tr>
<tr>
<td>Cardiovascular Surgery</td>
<td>9 (18)</td>
<td>8 (16)</td>
<td>17 (17)</td>
</tr>
<tr>
<td>APACHE II score</td>
<td>18 ± 9</td>
<td>20 ± 6</td>
<td>19 ± 8</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>15 (30)</td>
<td>18 (36)</td>
<td>33 (33)</td>
</tr>
<tr>
<td>Antibiotic</td>
<td>45 (90)</td>
<td>47 (94)</td>
<td>92 (92)</td>
</tr>
<tr>
<td>Duration, d</td>
<td>11.3 ± 5.2</td>
<td>18.0 ± 12.7</td>
<td>14.8 ± 11.0</td>
</tr>
<tr>
<td>Mechanical ventilation</td>
<td>44 (88)</td>
<td>45 (96)</td>
<td>92 (92)</td>
</tr>
<tr>
<td>Duration, d</td>
<td>10.4 ± 5.8</td>
<td>19.2 ± 12.3</td>
<td>15.1 ± 12.0</td>
</tr>
<tr>
<td>Mortality</td>
<td>7 (14)</td>
<td>7 (14)</td>
<td>14 (14)</td>
</tr>
</tbody>
</table>

Data are presented as mean ± SD or No. (%). Group A: baseline 5 d of ICU admission; Group B: baseline 10 d of ICU admission. APACHE = Acute Physiology and Chronic Health Evaluation.

result detected in the complete cohort. Recently, a systematic review identified a total of 13 studies that have described CMV infection in immunocompetent critically ill patients. CMV infection occurred in 0% to 36% of these critically ill patients. The authors found considerable heterogeneity in the methodology used to assess CMV infection and in the study population, which can explain the variability of the results. Our study has some limitations, including relatively low Acute Physiology and Chronic Health Evaluation (APACHE) II scores for each group, despite a relatively long length of stay in the ICU.

In conclusion, despite the use of a very sensitive PCR assay, we were unable to demonstrate a significant prevalence of CMV viremia in our nonimmunocompromised ICU population. Accordingly, our data do not support empirical screening of nonimmunocompromised ICU patients in the absence of clinical evidence of CMV infection.

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Dr Leflamme: contributed to the study concept and design, analysis and interpretation of data, and critical revision of the manuscript for important intellectual content.

Dr Albert: contributed to the study concept and design, acquisition of data, analysis and interpretation of data, drafting of the manuscript, and critical revision of the manuscript for important intellectual content.

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REFERENCES


Low-Dose Tissue Plasminogen Activator in Pulmonary Embolism

Benefit Remains Unclear

To the Editor:

We read the article in CHEST (February 2010) by Wang et al with great interest. However, we found several limitations. First, the authors tried to demonstrate the equivalency of low-dose and full-dose tissue plasminogen activator (tPA), although the superiority of full-dose tPA compared with anticoagulation in pulmonary embolism with right ventricular dysfunction is not firmly established, and its use remains controversial. The pulmonary embolism thrombolysis study, a large, ongoing European multicenter randomized controlled trial, will hopefully settle the controversy.

Second, the authors used a CT pulmonary angiography score as one of the surrogate end points. However, it is unclear whether...