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Letters to the Editor

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To assess the value of inflammatory markers in the diagnosis of infectious endocarditis, we analyzed 270 consecutive cases of suspected infectious endocarditis (5). For all cases, we used the Duke criteria (2) for diagnosis and classified the cases as definite, possible, and rejected cases. The cases were included in an "endocarditis kit" assembled to standardize the biological investigation (3, 5). C-reactive protein, erythrocyte sedimentation rate, rheumatoid factor, and tumor necrosis factor rate (1) were evaluated (Table 1). To compare the data, we used the Fisher test using Epi Info version 6.04a (Centers for Disease Control and Prevention, Atlanta, GA). A P of <0.05 was considered statistically significant. From January 2004 to April 2005, 270 cases were identified at our center. When the Duke criteria were applied, 56 cases were classified as definite and 214 as rejected. We diagnosed 52% streptococcal endocarditis, 22% staphylococcal endocarditis, 16% blood-negative endocarditis, and no intracellular bacterial endocarditis cases. In the rejected cases, there were 6% with inflammatory articular disease. The C-reactive protein rate was available for 225/270 patients and was elevated (>10 mg/liter) in 84% of the definite endocarditis and 78% of the rejected cases, but the difference was not significant. The sedimentation rate was available for 223/270 patients and was elevated (>50 mm/h) in 56% of the definite endocarditis and 54% of the rejected cases (the difference was not significant). The tumor necrosis factor rate was available for 168/270 patients and was elevated (>70 pg/ml) in 24% of the definite endocarditis and 70% of the rejected cases; the difference was not significant. The rheumatoid factor level was available for 223/270 patients and was elevated (>10 mg/liter) in 36% of the definite endocarditis and 19% of the rejected cases; the difference was statistically significant (P < 0.01). Among the inflammatory markers tested, we found significantly elevated levels of rheumatoid factor only among definite endocarditis cases (6). Other markers were not significant. C-reactive protein and sedimentation rate, which were recently proposed to be used as minor criteria for infective endocarditis, are not correlated with a diagnosis of endocarditis (4). We concluded that the presence of positive rheumatoid factor (already a Duke minor criterion) is the only inflammatory marker that helps in the diagnosis of patients with suspected infective endocarditis, but other inflammatory markers which have not been analyzed in this study might be relevant as well.

TABLE 1. Inflammatory markers used in this study

<table>
<thead>
<tr>
<th>Marker</th>
<th>Definite endocarditis (n = 56)</th>
<th>Rejected endocarditis (n = 214)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-reactive protein (positive, &gt;10 mg/liter)</td>
<td>29</td>
<td>141</td>
<td>NS</td>
</tr>
<tr>
<td>Sedimentation rate (positive, &gt;50 mm/h)</td>
<td>44</td>
<td>93</td>
<td>NS</td>
</tr>
<tr>
<td>Rheumatoid factor (positive, &gt;15 µg/ml)</td>
<td>21</td>
<td>36</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>TNF (positive, &gt;70 pg/ml)</td>
<td>16</td>
<td>68</td>
<td>NS</td>
</tr>
</tbody>
</table>

*NS, not significant; Fisher’s test using Epi Info version 6.04a (Centers for Disease Control and Prevention, Atlanta, GA) was used (P of <0.05 was considered statistically significant).

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