To the Editor

We read with interest the article by Cha et al \(^1\) on the comparison among erythrocyte sedimentation rate (ESR) measurement methods. In this article, the authors stated that TEST 1 ESR measurements better reflect the presence of inflammation than do Westergren data in patients with malignancy, autoimmune disease, or infection.

We measured the ESR using the TEST 1 analyzer and Westergren method on samples from 461 patients with rheumatic diseases such as rheumatoid arthritis (RA), systemic lupus erythematosus, and ankylosing spondylitis. There was a good correlation between the results of the 2 methods (correlation coefficient, 0.928),\(^2\) and the average difference of the 2 methods was 2.09. TEST 1 values were higher than the Westergren values, which were opposite the results of Cha et al.\(^1\) Although the ESR is not a specific test for detecting inflammation, it is useful as a disease-monitoring parameter in patients with RA.\(^3\)

We measured the ESR in 287 patients with RA with the TEST 1 and Westergren methods. The 2 methods showed good correlation \((y = 0.890x + 5.343; r = 0.963; P < .05)\). Some authors have suggested that C-reactive protein (CRP) and rheumatoid factor (RF), as well as the ESR, are useful markers in RA,\(^4,5\) so we studied CRP and RF values in patients with RA. Our study revealed that CRP showed a high correlation with ESR, whereas RF showed a low correlation with ESR \(\text{Table II}\). Although there was no absolute correlation between CRP and RF, patients with RA may replace the Westergren ESR method with the more convenient method of TEST 1, since TEST 1 showed a high correlation with Westergren ESR and CRP.

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<table>
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<th>Table II</th>
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<tr>
<td>Correlations Between TEST 1 and Westergren ESR Values and Concentrations of CRP and RF for 287 Patients With Rheumatoid Arthritis</td>
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<tr>
<th></th>
<th>TEST 1 ESR</th>
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<th>Westergren ESR</th>
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<tbody>
<tr>
<td>CRP</td>
<td>(y = 9.909x + 17.43)</td>
<td>(r = 0.683) (&lt; .001)</td>
<td>(y = 10.66x + 14.12)</td>
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<td>RF</td>
<td>(y = 0.022x + 26.42)</td>
<td>(r = 0.292) (&lt; .01)</td>
<td>(y = 0.036x + 23.37)</td>
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CRP, C-reactive protein; ESR, erythrocyte sedimentation rate; RF, rheumatoid factor.

### References


