Influence of Inflammatory Variables on Intima-Media Thickness

To the Editor:

The increase of carotid intima-media thickness (IMT) is a validated marker for atherosclerotic progression, and it has been related to a higher incidence of cardiovascular events. However, data focusing on its determinants are scarce. Lorenz et al reported the relationship between C-reactive protein (CRP) and the progression of carotid IMT in a population-based study.

We have studied the influence of inflammatory markers in the development of atherosclerosis (baseline and IMT increase/decrease) in Human Immunodeficiency Virus (HIV)–infected patients (n=141). We performed a standardized protocol for the acquisition of IMT (far wall IMT of common, bulb and internal portions of both carotid arteries, and both common femoral arteries). The same protocol was applied in the first (baseline) and in the second exams (mean follow-up of 2.5 years). Several inflammatory-related variables (serum CRP [Quantex hs-CRP kit, Biokit] and monocyte chemoattractant protein 1 concentration) were determined. We also must consider that there are parameters, has severe weaknesses. Consequently, a thorough study of different inflammatory pathways and the genetic background, in addition to the use of noninvasive techniques to study the artery wall (IMT or coronary calcium score), is warranted.

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Disclosures

None.

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Table. Characteristics of HIV-Infected Participants in the Study According to Quartiles of CRP

<table>
<thead>
<tr>
<th>Quartile</th>
<th>First Quartile, n=32</th>
<th>Second Quartile, n=34</th>
<th>Third Quartile, n=37</th>
<th>Fourth Quartile, n=34</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years</td>
<td>39.7 (7.01)</td>
<td>37.5 (8.1)</td>
<td>39.8 (6.5)</td>
<td>38.4 (7.5)</td>
<td>0.5</td>
</tr>
<tr>
<td>CRP, mg/L</td>
<td>0.55 (0.28)</td>
<td>1.54 (0.33)</td>
<td>3.25 (0.68)</td>
<td>9.96 (5.22)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Baseline IMT, mm</td>
<td>0.77 (0.18)</td>
<td>0.70 (0.16)</td>
<td>0.74 (0.20)</td>
<td>0.77 (0.17)</td>
<td>0.39</td>
</tr>
<tr>
<td>Follow-up IMT, mm</td>
<td>0.84 (0.16)</td>
<td>0.82 (0.12)</td>
<td>0.84 (0.18)</td>
<td>0.84 (0.12)</td>
<td>0.97</td>
</tr>
<tr>
<td>ΔIMT, mm</td>
<td>0.07 (0.21)</td>
<td>0.11 (0.15)</td>
<td>0.10 (0.23)</td>
<td>0.06 (0.13)</td>
<td>0.64</td>
</tr>
</tbody>
</table>

Missing values, n=4. ΔIMT = IMT follow-up–IMT baseline.
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