TABLE 1. Mean±SD of Platelet and White Blood Cell Counts Observed In Patients With Cerebral Ischemic Infarction and in Control Subjects

<table>
<thead>
<tr>
<th></th>
<th>Patients with cerebral infarction (n=44)</th>
<th>Control subjects (n=60)</th>
<th>Statistical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platelet count (x10^9/l)</td>
<td>215.545±63.593</td>
<td>299.525±60.611</td>
<td>p&lt;0.001</td>
</tr>
<tr>
<td>White blood cell count</td>
<td>10.600±3.210</td>
<td>7.453±1.637</td>
<td>p&lt;0.001</td>
</tr>
</tbody>
</table>

We studied 44 patients (26 women, 18 men; mean age 75±9 years) within the first 47±25 hours after onset of cerebral ischemic infarction, diagnosed by clinical evaluation and computerized axial tomography. A fasting blood sample was collected in the morning to evaluate platelet and white blood cell counts by means of a Coulter Count Mod II. None of the patients was taking drugs affecting platelet and white blood cell behavior, particularly platelet anti-aggregants or corticosteroids. We performed careful clinical surveillance, especially of fluid and electrolyte metabolism, acid-base balance, oxygenation state, and infection prevention.

Our comparison of the mean values of platelet and white blood cell counts of the patients with cerebral ischemic infarction and those observed in 60 control subjects of comparable age and sex confirms reports in the literature of a significant thrombocytopenia (p<0.001) and leukocytosis (p<0.001) (Table 1) in the early phase of cerebral ischemic infarction. An inverse correlation between the two parameters was demonstrated (r = -0.41, p<0.01).

Moreover, the relationship between the two parameters we studied also suggests that the increase in the white blood cell count, due to inflammatory perilesional stimulation, is strictly related to platelet consumption or accumulation in the infarct area, expressed by the extent of the decrease in the platelet count.

References


The Significance of Carotid Bruits

To the Editor:

The recent report by Wiebers et al points out the important implications of the readily detected carotid bruit as a hallmark of increased risk of stroke. However, there is an implication, unstated in the report, which could be misleading, that there is a direct connection between the bruit, the diseased carotid artery, and the subsequent stroke. This suggests that surgical removal of these
Relationship between platelet and white blood cell counts during the early phase of cerebral infarction.
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