Intra-Arterial Thrombolysis Within 3 Hours: Where Is the Evidence?

To the Editor:

We have read with interest the article, “Intra-arterial thrombolysis within 3 hours after acute ischemic stroke in selected patients,”1 in the Controversies in Stroke section, wherein the authors cite the Interventional Management of Stroke Study to claim that combined intravenous and intra-arterial therapy with recombinant tissue-type plasminogen activator, when used in 28 patients with carotid occlusion, led to recanalization in 56% of them, and this correlates with clinical outcome (Rankin score 0 to 1).1 We fail to understand how the authors reached this conclusion. In the Interventional Management of Stroke-1 Study, of 28 patients with carotid occlusion or severe stenosis, 16 (57%) had Thrombolysis in Myocardial Infarction 2 to 3 or 3 grade recanalization, but outcome (modified Rankin score 0 to 1) was observed in only 4 (14%) of these patients.2 Readers need to be cautious in interpreting the present data (the Table). To settle the present controversy, we need a trial comparing intravenous and intra-arterial thrombolytic modes of therapy.

Disclosures

None.

Table. Patient Data for the Interventional Management of Stroke Study2

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Recanalization, TIMI Grade 2–3, 3</th>
<th>Outcome, Modified Rankin Score 0–1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICA occlusion + distal embolus</td>
<td>5</td>
<td>1, 0</td>
<td>1 (20%)</td>
</tr>
<tr>
<td>ICA stenosis &gt;70% + distal embolus</td>
<td>15</td>
<td>8, 2</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>C5, 6, 7 (T occlusion)</td>
<td>7</td>
<td>4, 1</td>
<td>0</td>
</tr>
<tr>
<td>C5+M2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

TIMI indicates Thrombolysis in Myocardial Infarction; ICA, internal carotid artery; Cn, C5-clinoid segment, C6-ophthalmic segment, C7-terminal segment of internal carotid artery; T, intracranial internal carotid artery at site of bifurcation; M2, insular segment of middle cerebral artery.

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