TO–ACT TRIAL

Thrombolysis Or Anticoagulation for Cerebral venous Thrombosis

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Cerebral venous thrombosis (CVT) is a rare cause of stroke\textsuperscript{1}

Anticoagulation is the standard therapy for CVT\textsuperscript{2,3}

Adjunctive endovascular treatment (ET) may be beneficial for patients with a high risk of poor outcome

Published experience with ET is promising, but no randomised studies\textsuperscript{4,5}

\textsuperscript{1}Coutinho et al. Stroke 2012
\textsuperscript{2}Saposnik et al. AHA guideline Stroke 2011
\textsuperscript{3}Ferro et al. ESO guideline \textit{in press}
\textsuperscript{4}Siddiqui et al. Stroke 2015
\textsuperscript{5}Canhao et al. Cerebrovasc Dis 2003
RESEARCH QUESTION

• Does endovascular treatment improve the clinical outcome of patients with severe CVT?
STUDY DESIGN TO-ACT TRIAL (1)

• Investigator-initiated, international, multi-centre RCT
• Open-label clinical trial with blinded endpoint measurement (PROBE)

Inclusion criteria

• Radiologically proven CVT
• Severe CVT
  - coma
  - mental status disorder
  - intracerebral haemorrhagic lesion
  - thrombosis deep cerebral venous system
• Uncertainty by the treating physician about the optimal treatment

## PRIMARY ENDPOINT (12 MONTHS)

<table>
<thead>
<tr>
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<th>Endovascular treatment (n=31)</th>
<th>Standard treatment (n=32)</th>
<th>Odds ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>mRS 0-1</td>
<td>22 (65%)</td>
<td>22 (66%)</td>
<td>0.95 (0.34-2.68)</td>
</tr>
</tbody>
</table>

### mRS at 12 months

- **Endovascular treatment**: 42 patients, 23 (55%), 23 (55%), 19 (45%), 3 (7%), 13 (31%)
- **Standard treatment**: 34 patients, 31 (91%), 16 (47%), 9 (26%), 6 (18%), 3 (9%)
CONCLUSION

- Endovascular treatment did not improve clinical outcome in patients with severe cerebral venous thrombosis