ASTER Study Design

Design	Prospective, randomized, multicenter, controlled open-label design with blinded outcome evaluation (PROBE)
Population	Patients admitted with suspected ischemic anterior circulation stroke secondary to LVO with onset of symptoms <6 hours
Randomization	➢ Randomized 1:1 to ADAPT or SR ➢ Stratified by center and prior IV thrombolysis.
Rescue	If the assigned treatment technique was not successful after 3 attempts, the procedure was continued with another technique at the operator's discretion.
Sites	8 centers in France
Sample Size	380 patients to detect an absolute difference of 15% in primary outcome ➢ Revascularization rate of 70% in the control (SR) arm ➢ Two-sided test (alpha=5%, power=90%) ➢ Rate of spontaneous recanalization and catheterization failures of 15%

Protocol submitted, IJS

ASTER TRIAL

Study Endpoints

Primary	Successful revascularization (mTICI 2b–3) at the end of the treatment
Secondary	➢ Successful revascularization (mTICI 2b–3) after the assigned treatment technique ➢ Procedural times ➢ Need for a rescue technique ➢ Complications ➢ Modified Rankin Scale (mRS) at 3-months

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Key Inclusion Criteria

- Age>18 years
- Cerebral infarction in the anterior circulation (internal carotid, M1 or M2 MCA)
- Occlusion of the anterior circulation proven by imaging (CTA or MRA)
- With or without IV thrombolysis
- Access to endovascular revascularization within 6 hours of symptom onset

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Primary Outcome

Core Lab assessed reperfusion outcomes

Post-Procedure (all treatments)

Frontline Treatment	TICI 2b/3 % Patients
ADAPT	164 (85.4%)
STENT RETRIEVER	157 (83.1%)

P value = 0.53

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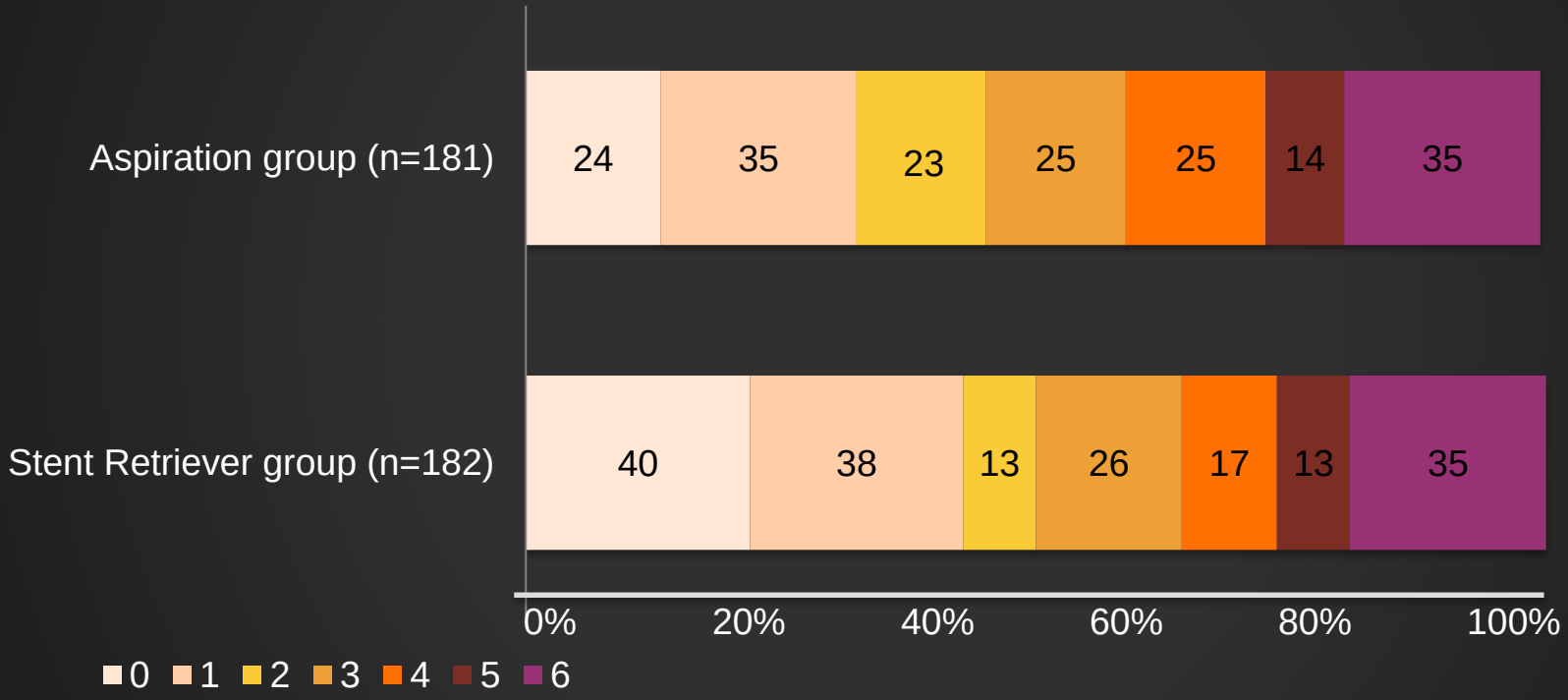
Efficacy endpoints

Distribution of Modified Rankin Scale scores at 3 month



Common odds ratio (OR) for 1 point improvement of 0.76 (95%CI, 0.53 to 1.10)., P=0,15

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ASTER Trial Take Away

- First independent large RCT focusing on ADAPT technique with blinded assessment data

- ASTER trial shows no statistical difference between aspiration and stent retriever as a frontline thrombectomy approach
  - Similar efficacy and safety endpoints

- ASTER trial opens the door to add a new tool (ADAPT) to remove the clot.

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TRIAL