

I. Efficacy Comparison with PROACT II. While the results for efficacy compared to the PROACT II control arm and the arbitrary goal of 30% are impressive, given the lack of a contemporaneous control arm, it is important to address concerns that the results reflect or are limited only to the cohort in which the MERCI study was performed. The following additional analyses would be most informative in this regard.

1. Show the comparison of the baseline characteristics of the PROACT II study (Table 2, JAMA 1999 282, p 2003) and the MERCI study.
 - ?? If available from the study authors, show the baseline characteristics for the PROACT II arm for middle cerebral artery occlusions only. If available from the study authors, show the inter-quartile ranges in addition to the median and range.
2. Show the comparison of the baseline characteristics between subjects on the MERCI study who had successful revascularization and those that did not.
 - ?? Baseline characteristics should include, in addition to gender, age, baseline NIHSS Score, and time to treatment shown in the MERCI Clinical Report, the other factors in Table 2 of the PROACT Report (JAMA 1999 282, p 2003) as well as CT hypodensity, shown in Wechsler et al (Stroke 2003, **34**: 1224-1229) to be prognostic for outcome. Show the inter-quartile ranges in addition to the median and range.
3. Perform an analysis that allows for the assessment of baseline characteristics in distinguishing between the 61 subjects with successful and the 53 subjects with unsuccessful revascularization (e.g. logistic regression as suggested by FDA statistical reviewer)
 - ?? Baseline characteristics should include, in addition to gender, age, baseline NIHSS Score, and time to treatment shown in the MERCI Clinical Report, the other factors in Table 2 of the PROACT Report (JAMA 1999 282, p 2003) as well as CT hypodensity, shown in Wechsler et al (Stroke 2003, **34**: 1224-1229) to be prognostic for outcome.

II. Safety Assessment

1. Expand the secondary outcomes of 30 and 90 day analyses (mortality, NIHSS, Rankin) with more sophisticated multivariate analyses as suggested in item I. 3 above, but add success or failure of revascularization as a covariate.

III. Eligibility Criteria for MERCI and PROACT II studies

1. Compare the baseline characteristics between subjects screened for the MERCI study (n = 1,412 -121) vs. those that were included in the study (n = 121).
 - ?? Describe the characteristics of subjects for which complete acute data was not available at the time of the submitted analyses (Clinical Review, “Patient demographics”)
2. Assess the impact of the efficacy and safety outcomes on differences between the eligibility and exclusion criteria for the MERCI and PROACT II studies.

MERCI Inclusion Criteria	PROACT II Inclusion Criteria
>= 18 years	18-85
Ischemic stroke	
<3 hrs of symptom onset, but not eligible for thrombolytic therapy	
>3 hrs of symptom onset but thrombectomy could be completed within 8 hrs from symptom onset	
NIHSS >= 8	NIHSS 4-30
Consent	
TIMI grade 0 or 1 flow	
Balloon guide catheter inserted and deployed to target vessel	
MERCI Exclusion Criteria	PROACT II Exclusion Criteria
Pregnant	Coma
Glucose<50	Rapid improvement
Arterial tortuosity inadequate	Recent stroke
Coagulation problems	Seizures at onset of symptoms
PTT>2	SAH
Platelet count <30,000	Previous ICH, Neoplasm
Severe allergy to contrast dye	Septic embolism
Uncontrolled Hypertension	Surgery, biopsy of a parenchymal origin, trauma with internal injuries or LP < 30 days
Mass effect	Suspected lacunar stroke
>50% stenosis proximate to target occlusion	Head trauma < 90 days or hemorrhage <30 days
< 3mos to live	Hemorrhagic diathesis, international normalized ration >1.7, PTT> 1.5 normal., baseline platelet count < 100X 10 ⁹ /L (100X10 ³ /μl)
On another ID study	Contrast sensitivity
	Uncontrolled hypertension
	CT ECASS criteria