PERFECT STUDY

The PERFECT study aimed to characterize the performance of EMBOVAC™ in the treatment of AIS in a real-world clinical setting.
PERFECT 연구는 실제 임상 환경에서 EMBOVAC™의 AIS 치료 효과를 파악하기 위해 시행되었습니다.

METHODOLOGY

Prospective, multi-center, single arm, post-market clinical follow-up study

October 2020 — July 2022

100
AIS PATIENTS WITH LVOS

11
EUROPEAN CENTERS

TECHNIQUE

Direct aspiration with EMBOVAC™ was the first-line therapy. A minimum of 3 passes with EMBOVAC™ were required before switching strategy.

DATA ASSESSMENTS

Imaging and procedure angiography were assessed by an **independent core lab**

90-day mRS assessed by an **independent evaluator**

Device related adverse events and **symptomatic ICH** assessed by an **independent clinical events committee**

Retrieved clot was collected per pass from 83 subjects, and clot was analyzed by **an independent central clot lab**

OUTCOMES

PRIMARY OUTCOME
Successful reperfusion at the end of procedure
Final mTICI ≥ 2b

SECONDARY OUTCOME
- **First pass mTICI ≥ 2c**
- **mRS 0-2 at 90 days**
- **90-day all-cause mortality**

AIS, acute ischemic stroke; LVO, large vessel occlusion; mRS, modified Rankin Scale; mTICI, modified Thrombolysis in Cerbrovascular Infarction; sICH, symptomatic intracranial hemorrhage

Lobotesis, K. et al., Direct Aspiration with EMBOVAC — First Clinical Experience and clot Composition (Results of the "PERFECT" Study. In ESMINT (2023).

RESULTS

PATIENT DEMOGRAPHICS AND BASELINE CHARACTERISTICS

Age	70.4±13.95
Sex, F	59.0% (59/100)
Pre-stroke mRS 0-1	98.0% (98/100)
Baseline NIHSS	14.9±6.39
Use of IV-tPA	51.0% (51/100)
Baseline ASPECT#	
0-5	15.0% (15/100)
6-7	25.0% (25/100)
8-10	60.0% (60/100)
Witnessed stroke	72.0% (72/100)
Wake-up stroke	9.0% (9/100)
Unwitnessed non-wakeup stroke	19.0% (19/100)
Occlusion Location#	
ICA & Carotid T	18.0% (18/100)
MCA, M1	71.0% (71/100)
MCA, M2	6.0% (6/100)
Other	4.0% (4/100)
Cannot determine	1.0% (1/100)

#core lab assessment

PROCEDURAL OUTCOMES

27.8 min
Procedure time, arterial puncture to mTICI >= 2b

2.4
Average number of total passes

2.0
Average number of EMBOVAC™ passes

ASPECT, Alberta Stroke Program Early CT Score; ICA, internal carotid artery; IV-tPA, intravenous tissue-type plasminogen activator; MCA, middle cerebral artery; mTICI, modified Thrombolysis in Cerbrovascular Infarction; mRS, modified Rankin Scale; NIHSS, National Institute of Health Stroke Scale

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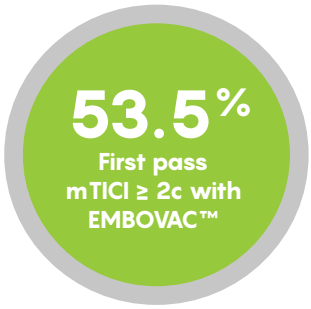
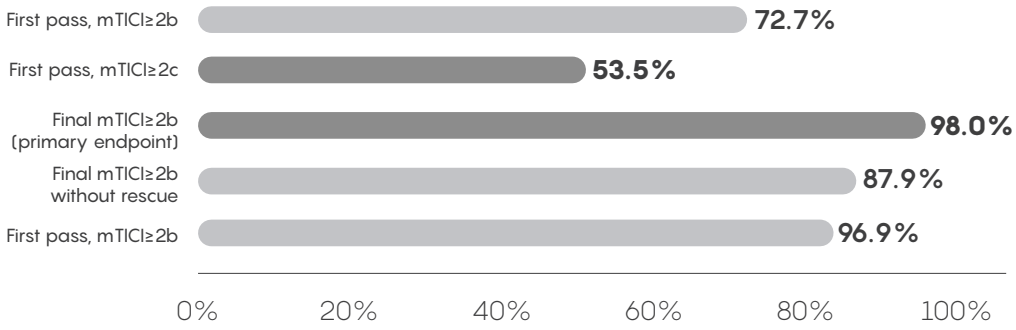
RESULTS

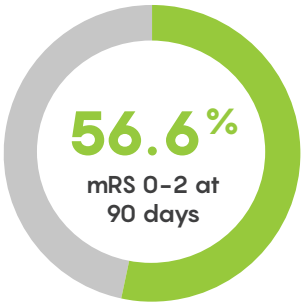
The PERFECT study demonstrated direct aspiration with EMBOVAC™ as first line therapy resulted in high rates of reperfusion, good clinical outcomes, and a strong safety profile.
PERFECT 연구는 EMBOVAC™을 사용한 direct aspiration이 first line 치료로 시행될 경우 높은 혈류재개통, 긍정적 임상 결과 및 안전성을 입증하였습니다.

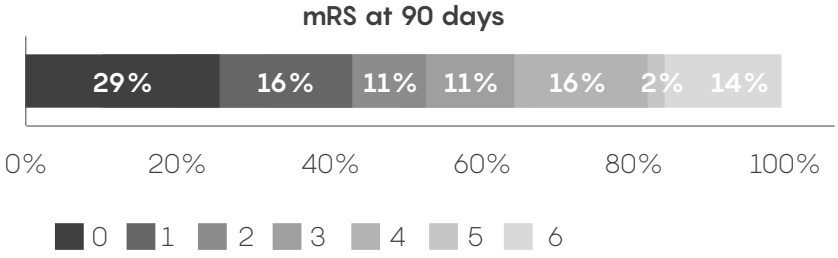
ANGIOGRAPHIC OUTCOMES





CLINICAL OUTCOMES





SAFETY OUTCOMES

12.9%
All-cause mortality at 90 days[a]

3.0%
Embolization to new territory

0.0%
Symptomatic ICH at 24-h

1.0%
Device related SAEs within 90 days[a]

[a] Estimate based on Kaplan-Meier analysis

mRS, modified Rankin Scale; mTICI, modified Thrombolysis in Cerbrovascular Infarction; SAE, serious adverse event; sICH, symptomatic intracranial hemorrhage

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