

ESA Clinical Trial Network: ARCTIC-I Study

Which aspects of anaesthesiological care during emergency thrombectomy influence functional outcome of stroke patients?



Fast facts

Strokes are globally the second most common cause of death and one of the leading causes of acquired disabilities.

Acute stroke due to large-vessel occlusion represent about one third of ischaemic strokes.

Endovascular thrombectomy in addition to systemic thrombolysis is the standard of care.

Depending on the symptoms of the stroke, some patients may require conscious sedation or general anaesthesia.

Research Questions

- What agents should preferably be used for general anaesthesia with respect to cardiovascular stability and clinical outcome?
- What are the criteria in favour of or against an extubation attempt after endovascular thrombectomy carried out under general anaesthesia?
- What agents should be used for conscious sedation?
- What are the respective incidences of successful recanalization hypopnea, apnea and desaturation?
- What are the risk factors for failure of sedation and the need for secondary intubation?

Study Design

European prospective, observational, multicentre study

We want to provide an overview of routine practice for anaesthesiological care during endovascular thrombectomy in Europe with regard to anaesthetic techniques. In addition, data describing the course and success of the procedure shall be supplied. From this database, we want to derive when an acute stroke patient can be treated with conscious sedation, when he should primarily be intubated, which drugs might be favorable in both cases, and under which circumstances extubation can be attempted after the procedure.

How to get involved

We need a lead for each participating country to co-ordinate all the hospitals, and each hospital will need a lead to co-ordinate recruitment of participants.

Main Inclusion Criteria

- Age \geq 18 years, either sex
- Acute ischaemic stroke with occlusion of the internal carotid artery and/or middle cerebral artery in the M1 or M2 segment
- Decision for endovascular stroke treatment

Main Exclusion Criterion

- Accompanying intracerebral haemorrhage

Primary Endpoint

- Dichotomised functional outcome at 90 days as assessed by modified Rankin scale \leq 2 versus mRS $>$ 2.

Secondary Endpoints

- Functional outcome at 90 days as assessed using the mRS
- Extubation
- Extent of reperfusion
- NIH stroke scale on day 1
- mRS at 30 days
- Mortality at 90 days (=category 6 of mRS)
- Time intervals of treatment steps
- Use of anaesthetic techniques

Sample Size

We plan to recruit at least 10,000 patients over a period of one year across Europe. Recruiting period at each individual site will be six months.

Sponsor

This study is sponsored and funded by a grant of the European Society of Anaesthesiology Clinical Trial Network (ESA CTN).

Chief Investigator

Dr. Andreas Ranft (Klinikum rechts der Isar der Technischen Universität München, Germany)

Call for Centres

Interested? Please fill in the online call for centre form on the ESA website: <http://www.esahq.org/ctnform>

Questions?

Ask at research@esahq.org



The information on this flier is preliminary as study protocol is not final.