

O-009 **MULTICENTRE EXPERIENCE WITH ASPIRATION ONLY
TECHNIQUE FOR ACUTE STROKE THROMBECTOMY
USING ACE64**

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Background Mechanical thrombectomy has been shown to be an effective and safe therapy for patients suffering an acute stroke. However, shortening the time span between onset of symptoms and recanalization has been partly achieved by a technical method known as aspiration thrombectomy. Our aim is to show the effectiveness of a new tool, the ACE 64, in order to further optimize neurological outcome and to minimize complications.

Method Between the December 2014 and March 2015 we identified 55 Patients with acute ischemic stroke and occlusion of large cerebral vessels. These were treated with an aspiration thrombectomy using a new large bore aspiration catheter, the Penumbra ACE 64 on an intention to treat basis in multicentre setting (Utrecht, Netherlands; Murcia, Spain; St. Gallen, Switzerland; Bochum, Germany; Recklinghausen, Germany; Odense, Denmark; Homburg, Germany).

Results Using the aspiration thrombectomy a Thrombolysis in Cerebral Infarction (TICI) Score of 2b or 3 was achieved in 53 of 55 cases (96,4%). In 17 cases, additional devices were used for the following reasons: Anchoring technique (9), distal vessel too small for ACE64 (5) and two cases were ACE64 could not pass preceding stenosis. In the aspiration thrombectomy only cases, a TICI score of 2b or 3 of 100% was achieved. The average time of groin puncture to revascularization was 32 min. Patients presented with a median National Institutes of Health Stroke Scale (NIHSS) score of 16 (4.0–26.0) and improved to a median NIHSS score of 4.5 (0.0–35.0) at discharge. There was each one case of major groin complication, vasospasm in preceding extracranial vessel, vessel dissection and of symptomatic intracerebral hemorrhage.

Discussion Due to the design of this new large bore aspiration catheter, trackability and navigation through the carotid syphon up to M1 / M2 is excellent. This means that approaching the clot in the target vessel is fast and because of the large lumen, aspiration is effective. The complication rate is low.

Most importantly, it is an extraordinarily fast method to achieving revascularization. In about 70% of patients, recanalization could be achieved by aspiration thrombectomy alone. As described with the method of aspiration thrombectomy before, there are various reasons for using additional devices. In about half of our cases, the stent retriever was used to maneuver the

ACE64 to the thrombus. One other reason was the dislodgement of the thrombus to a distal part of the treated vessel or also called a distal embolization in the target downstream territory.

In these cases, the aspiration catheter was too large to achieve a thrombectomy and a stent retriever was used.

In conclusion, we are able to demonstrate the aspiration thrombectomy using the ACE64 to be an effective, easy to use, fast and safe method for treating acute stroke patients.

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