P120/221 CAN THE NOVEL PRELAX TRACTION MANEUVER BE THE LONG-AWAITED SOLUTION FOR THE TREATMENT OF POSTHEMORRHAGIC CEREBRAL VASOSPASM ?

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Introduction Cerebral vasospasm (CVS) is a frequent complication following subarachnoid hemorrhage (SAH). The most interventional and pharmacological measures are only effective for short periods.

Recently, studies have shown a possibly beneficial effect of the treatment of CVS following SAH through stent-retriever devices. We report our experience with the new pRELAX traction maneuver and device in the treatment of CVS.

Aim of Study Our aim is to show that the pRELAX traction maneuver is both safe and effective in our small experience.

Methods We treated six patients suffering from posthemorrhagic CVS using pRELAX Traction Maneuver.

We temporarily deployed the pRELAX device into CVS affected vessels and pulled it back unfolded into the internal carotid artery; in a technique comparable to endovascular thrombectomy.

Angiographic results, periprocedural complications and angiographic follow-up data were recorded.

Results Six patients and thirteen vessels were included (8 middle cerebral artery; 5 intradural internal carotid artery). There were no periprocedural complications and all vessels showed significant angiographic improvement already during the treatment. None of the treated vessels showed recurrent CVS requiring further endovascular treatment. No new ischemia were found in the treated vessels territories and no vascular injury was seen on follow-up angiographies.

Conclusion The treatment of CVS with the new pRELAX traction maneuver showed promising results in our experience, at a low risk and with favorable in-hospital course of the patients. Since the treatment options of CVS following SAH are limited, this initiative may pose a long sought measure to prevent ischemic complications for patients surviving SAH.

Disclosure of Interest Ali Khanafer:
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Victoria Hellstern:
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Alexandru Cimpoca:
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Oliver Ganslandt:
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P121/240 GO WITH THE FLOW TO MAXIMIZE CLOT INGESTION

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Introduction Thrombectomy in distal, medium vessels is becoming a topic of increasing interest. To date, most bench-top comparisons of aspiration catheters have focused on larger catheters utilized in proximal occlusions and there are no *in vitro* studies focused on 3, 4, & 5F catheters performance.

Aim of Study The purpose of this study is to compare the performance of the 3F, 4F, and 5F Q™ Aspiration Catheters verse Penumbra 3F, 4F, Sofia 5F.

Methods Aspiration flow and force were collected. Navigation was assessed in a tortuous M2 model and an sinusoidal model. Pressure and flow sensors were used to obtain instantaneous values for water and synthetic clots during aspiration.

Results The measured flow rate of the Q3, Q4, Q5 catheters (aspiration only) was 3.54 ml/s, 5.32 ml/s, and 6.87 ml/s, respectively, and 3 Max, 4 Max, SOFIA 5 was 1.46 ml/s, 2.56 ml/s, and 2.91 ml/s, respectively.

The mean aspiration force for the Q3, Q4 catheters was 44mN, and 60mN, respectively, and 3Max, 4Max was 32mN and 47mN, respectively.

The mean catheter ingestion time (catheter tip to canister) of Q3, Q4, Q5 aspirating soft clot type were 30s, 10s, and 77s, respectively, and 3 Max, 4 Max, SOFIA 5 were mostly incomplete. For medium clot types, Q3, Q4, Q5 mean ingestion times were 13s, 21s and 31s, respectively, and 3Max, 4 Max, SOFIA 5 were mostly incomplete.

Conclusion The Q catheter demonstrated higher flow rates, faster complete clot ingestion and higher aspiration force than the competive catheters.

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P122/250 MAN VS MACHINE: HIGH VARIABILITY IN PHYSICIAN ESTIMATIONS OF FLOW DIVERTING STENT DEPLOYMENT VS PRESIZE NEUROVASCULAR SOFTWARE SIMULATION

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Introduction Clinician variability in preoperative planning of endovascular implant deployment and associated inaccuracies have not been yet documented.