

from growth to rupture in a patient with a middle cerebral artery aneurysm and annual imaging from 2012-2022.

Results We could successfully develop a simulation software that was implemented as part of a graphical user interface. Using this intuitive approach, it is possible for medical personnel without simulation experience to run detailed FSI simulations.

In our exemplary case, WSS was highest in 2012 and decreased during growth. In contrast, oscillatory shear index (fluid dynamics) increased over time, especially in the region of aneurysm growth. Wall stress (structural dynamics) remained constant during growth over years. However, shortly before aneurysm rupture, wall stress increased significantly.

Conclusion We could successfully develop a simulation software. The aim of this project is to integrate this simulation method in our cerebrovascular conference to improve decision making and patient care. In a next step we will perform external validation using a multi-center approach.

Disclosure of Interest no.

P091

EFFICACY AND SAFETY OF FLOW DIVERSION IN THE TREATMENT OF CAROTICO-OPHTHALMIC ANEURYSMS

¹James Ayre, ²Fathallah Islim, ²Nayyar Saleem, ¹Aubrey Smith, ¹Paul Maliakal, ¹Hamed Nejadhamzeeigilani, ²Tufail Patankar. ¹Hull Royal Infirmary, Hull, UK; ²Leeds Teaching Hospital Trust, Leeds, UK

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Introduction Carotico-ophthalmic aneurysms represent 5.6% of all intracranial aneurysms¹. Flow diversion has been shown to be effective in the treatment of intracranial aneurysms, demonstrating high rates of occlusion and low complication rates.

Aim of Study The study aimed to assess the efficacy and safety of flow diversion in the treatment of carotico-ophthalmic aneurysms.

Methods Patients from two institutions with carotico-ophthalmic aneurysms treated with flow diversion between 2015 and 2021 were retrospectively analysed. Patient demographics, aneurysm characteristics, clinical outcome, and follow-up imaging were assessed.

Results 106 patients were treated using 10 different types of flow diverter. 97% of patients were female. 28% had hypertension, 27% were active smokers, and 18% were ex-smokers. Three patients were acute presentations. Mean maximum aneurysm width diameter was 7.25mm (1.5 – 25.8) and mean aneurysm neck diameter was 4.36mm (1.2 – 9.46). 30.2% of patients had adjunctive coiling. Complications included intracranial haemorrhage (n = 1), major stroke (n = 2), minor stroke (n = 13) of which all had resolved at 6 months, and groin complications (n = 10). Mortality was <1%. No visual symptoms were reported. 96% of patients received follow-up, with an average follow-up duration of 23.7 months. 94% of patients had complete occlusion (RROC 1) on follow-up imaging, and 100% of patients had adequate occlusion (RROC 1 or 2) on the most recent imaging.

Conclusion The study demonstrates that flow diversion is both effective and safe in the treatment of carotico-ophthalmic aneurysms, providing extremely high rates of occlusion and low rates of morbidity and mortality.

Disclosure of Interest no.

P092

JAILED A1/A2 SEGMENT FOLLOWING FLOW DIVERTER USE IN THE TREATMENT OF INTRACRANIAL ANEURYSMS

James Ayre, Aubrey Smith, Paul Maliakal, Hamed Nejadhamzeeigilani. Hull Royal Infirmary, Hull, UK

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Introduction The treatment of internal carotid artery termination and A1/A2 junction aneurysms can be challenging, particularly in the context of anatomical variation.

Aim of Study The study aimed to assess the safety and clinical outcomes of the use of flow diversion in the treatment of aneurysms where the A1 or A2 segment was jailed.

Methods Patients who underwent flow diversion as the primary modality of treatment between 2013 and 2022 at a single centre were retrospectively reviewed. Data was collected on patient demographics, aneurysm characteristics, intra-procedural imaging, clinical outcome, and follow-up.

Results 20 patients (80% female) with 26 aneurysms were treated where the A1 or A2 segment was jailed. The mean age was 53. Two cases were acute procedures for subarachnoid haemorrhage. Aneurysm location included the ICA (n=12), MCA (n=5), AComA (n=4), and PComA (n=5). The A1 segment was jailed on 18 occasions, and the A2 segment on two occasions. Thromboembolic complications resulting in permanent neurological deficit occurred in one patient. Other complications included groin haematomas (n=2) and hyperperfusion syndrome (n=1), all of which were successfully medically managed. 96% received follow-up, with a mean duration of 33 months. 77% of aneurysms were completely occluded (RROC 1) on most recent imaging with 92% demonstrating satisfactory occlusion (RROC 1 or 2). No patient required re-intervention.

Conclusion Jailing of the A1 or A2 segment during flow diverting treatment of aneurysms may be performed in selected cases dependent on the patient anatomy with a relatively safe and efficacious outcomes.

Disclosure of Interest no.

P093

ACUTE FLOW DIVERSION IN RUPTURED INTRACRANIAL ANEURYSMS – A CASE SERIES ANALYSIS

¹Iago Tsertsvadze, ¹Giga Sulaberidze, ²Andrii Netliukh, ¹Lasha Dzotsenidze, ¹Giorgi Loria, ¹Salome Tsertsvadze, ¹Nana Tchantchaleishvili. ¹West Georgia Medical Center, Kutaisi, Georgia; ²1st Lviv Territorial Medical Union, Lviv, Ukraine

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Introduction Endovascular embolization, currently established as the primary treatment for over 70% of ruptured intracranial aneurysms, reflects the rapid evolution of neurointerventional surgery. While traditional microsurgical approaches present obstacles, the challenges are magnified in acute cases due to heightened device limitations and complexities in anti-platelet therapy.

Aim of Study To assess the efficacy and safety of intracranial stent placement in the management of acute ruptured cerebral aneurysms, emphasizing patient selection criteria, procedural nuances, and post-treatment outcomes, within a single-center cohort.

Methods Out of 462 patients with acute aneurysmal subarachnoid hemorrhage (SAH) treated at our institution since 2015,