

Results If we do not performed the angiography before surgery, the patient should have a poor outcome after surgery. Especially, before considering the clipping or ligation management of complex vascular disease, we should perform the detailed cerebral angiography.

Disclosure of Interest no.

P076 OPTIMIZING AVM TREATMENT: A TRANSVENOUS APPROACH

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Introduction We present a case study of a 32-year-old female patient admitted with an intracerebral hematoma detected on brain CT, subsequently diagnosed with an arteriovenous malformation (AVM) through CT angiography. A pivotal question arose regarding the optimal approach – arterial or venous – for intervention.

Case Description Upon careful consideration, the decision was made to pursue a venous approach. Specifically, the procedure involved initial access via the femoral vein followed by advancement to the cervical venous system. This approach was chosen based on several factors, including the AVM's location, vascular anatomy, and the potential for minimizing procedural risks while optimizing therapeutic efficacy.

This case study was presented to highlight the nuanced decision-making process involved in AVM management. The choice of a venous approach was informed by a multidisciplinary team comprising neurosurgeons, interventional neuroradiologists, and neurologists, who collectively weighed the risks and benefits to tailor the intervention to the patient's specific clinical scenario.

Results This case underscores the importance of individualized treatment strategies in neurointervention, particularly in complex cases such as AVMs. By sharing this experience valuable insights were exchanged, contributing to the advancement of best practices in AVM management and ultimately improving patient outcomes.

Disclosure of Interest no.

Haemorrhagic

1.1. Aneurysms

P078 MICROSNARE RETRIEVAL AS A BAIL-OUT TECHNIQUE OF DETACHED WOVEN ENDOBRIDGE DEVICE: ILLUSTRATIVE SERIES

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Introduction The Woven EndoBridge (WEB) device (MicroVention, Tustin, CA, USA) has an excellent safety profile. While major complications such as device malposition and migration

are rare, they can have serious consequences if not addressed promptly.

Aim of Study Our case series describes the safety and efficacy of Amplatz goose neck microsnare device (Medtronic in Irvine, CA, USA) in endovascular retrieval of a detached WEB device.

Methods We retrospectively reviewed six consecutive patients who underwent endovascular WEB retrieval using Amplatz microsnare device between March 2012 and December 2022.

Results All six WEB devices were successfully retrieved either directly from the aneurysm sac due to device malpositioning or from a distal branch following device migration. None of the patients experienced intra-operative aneurysm perforation, arterial dissection, or vasospasm attributable to the process of WEB extraction. Five out of six patients (83.3%) had a good functional outcome (mRS 0-1) upon discharge from the hospital and at 24 months.

Conclusion Our experience suggests that detached WEB devices can be safely retrieved using an Amplatz microsnare. Apart from addressing device migration, direct removal of an undersized or malpositioned WEB from the aneurysm sac appears to be a safe option that can be considered when all other rescue techniques have been exhausted.

Disclosure of Interest no.

P079 A COMPARATIVE STUDY OF TRANSRADIAL VERSUS TRANSFEMORAL ACCESS FOR FLOW DIVERSION

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Introduction Transradial access (TRA) has slowly gained momentum within the neurointerventional community regarding cerebral angiography and neurointervention. In the recent years, we are seeing more neurointerventional literature showing evidence of the safety and efficacy of using TRA compared to transfemoral (TFA). Radial access is not without limitations including smaller artery size, anatomical variants and lack of radial-specific catheters.

Aim of Study To primary aim is to demonstrate the safety and efficacy of intracranial aneurysm treatment with flow diverting stents in patients on dual antiplatelets using transradial compared with transfemoral access

Methods We conducted a retrospective 140 consecutive patients who underwent endovascular embolization for intracranial aneurysms using flow diverting stents from January 2019 through January 2023. Patients were divided into two groups: transradial access (63 patients) and TFA (77 patients). A comparative analysis was performed between the two groups.

Results There was no significant difference in postoperative ICH, ischemic stroke, or other complications between TRA versus TFA groups. However, access site complications were lower in TRA versus TFA group (4.7 vs. 12.9%, respectively), predominantly in the form of superficial haematoma. There was no significant difference in complete aneurysm occlusion at 6 and 24 month follow-up DSA or MRA.

Conclusion The efficacy of flow diversion via TRA for the treatment of intracranial aneurysms is comparable to TFA.

However, access site complications were significantly lower in TRA group. Whenever feasible, adoption of radial approach should be considered in neurointerventional procedures, particularly when dual antiplatelet therapy is used.

Disclosure of Interest no.

P080 NUMERICAL SIMULATION OF INDIVIDUAL COIL PLACEMENT – A PROOF-OF-CONCEPT STUDY FOR THE PREDICTION OF RECURRENCE AFTER ANEURYSM COILING

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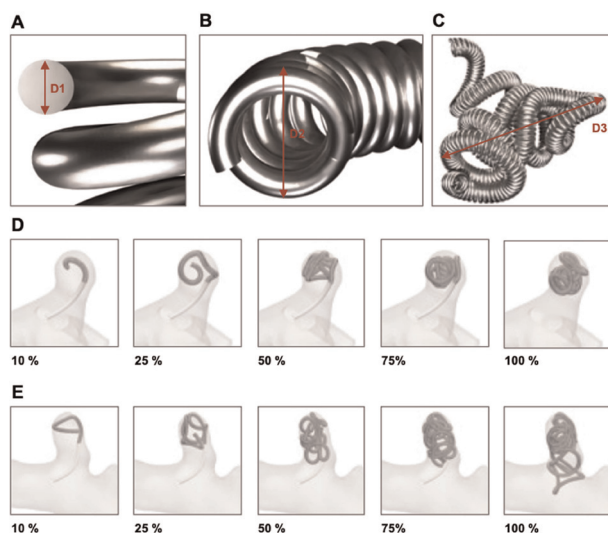
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Introduction Coiling is the most used method for interventional aneurysm occlusion. The choice of the specific coil has an important influence on secondary regrowth, requiring retreatment, and is made based on expert opinions. Individual simulations of the coiling procedure could provide additional information and save costs for rejected coils.

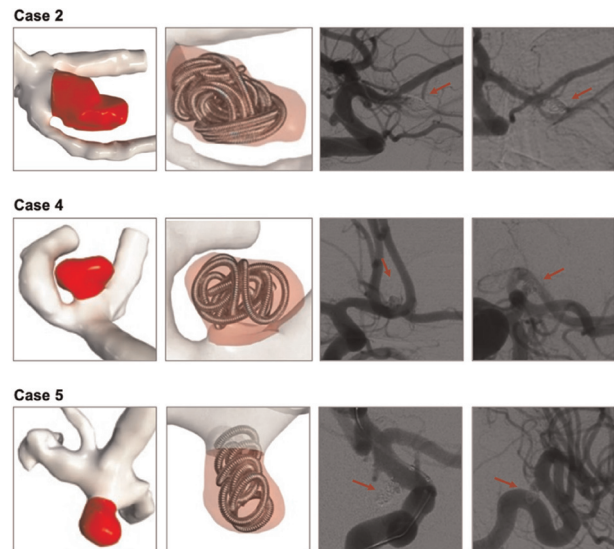
Aim of Study To simulate coiling in different aneurysm geometries and to compare simulation results with clinical recurrence.

Methods In a proof-of-principle study, we simulated coiling in 6 anterior circulation cases treated with a single coil, out of which 50% had a regrowth, defined as Raymond & Roy class 2 or 3, observed in a follow-up angiography after 6 months using a newly developed numerical approach to simulate coil shapes. We then correlated simulation results with aneurysm recurrence.

Results The simulation showed various coil shapes depending on the variability in possible microcatheter positions. Aneurysms with a later recurrence showed a tendency for more frequent successful coiling attempts. Further trends suggested lower simulated packing densities in aneurysms with



Abstract P080 Figure 1 Inserted coils were characterized using Diameters D1 of the coil stock wire (A) D2, the radius of the helical shape(B) and D3 representing the macroscopic shape (C). Coiling



Abstract P080 Figure 2 Simulation of a coiling in a specific aneurysm. Angiographic screenshots show results immediately after coiling (left) and 6 months after coiling (right). Case 2 had a full occlusion after 6 months (R & R 1), Case 4 had a coil compactation with a neck remnant after 6 months (R & R 2) and Case 5 had an aneurysm recurrence classified (R & R 3B)

reoccurrence. Simulated packing densities did not correlate with those calculated by conventional software, indicating the potential for our approach to offer additional predictive value. **Conclusion** Our study pioneers a comprehensive numerical model for the simulation of aneurysm coiling, providing insights into individualized treatment strategies and outcome prediction. This simulation framework holds promise for enhancing clinical decision-making and optimizing patient outcomes in endovascular aneurysm treatment after refinement in the future.

Disclosure of Interest no.

P081 RISK IDENTIFICATION FOR THE DEVELOPMENT OF LARGE-ARTERY VASOSPASM AFTER ANEURYSMATIC SUBARACHNOID HEMORRHAGE – A MULTIVARIATE, RISK- AND LOCATION-ADJUSTED PREDICTION MODEL

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Introduction Large-artery vasospasm (CVS) after aneurysmatic subarachnoid hemorrhage (aSAH) can reduce cerebral perfusion and cause severe neurological deficits. Delayed recognition of CVS risks the success of endovascular spasmolysis. An analysis of potential risk factors could be used to enable risk stratification for early therapeutic interventions.

Aim of Study To confirm established and identify unknown risk factors for CVS at the time of aneurysm occlusion.

Methods We compared 853 aSAH patients (mean age 57) treated at our center between 01/2006 and 03/2020. Patients with and without CVS were compared based on demographic, clinical, and radiographic parameters at the time of aneurysm