Introduction Evidence for benefit of aneurysm treatment using coated Flow Diverter devices compared to uncoated devices is limited.

Aim of study To compare short term imaging endpoints of flow diverter implants with and without coating for treatment of saccular aneurysms in a matched pair analysis.

Methods We retrospectively included patients with incidental aneurysms who were treated with one or more flow diverters. Coated flow diverters included p64 HPC, p48 HPC, Derivo2 heal and PED2 shield. Uncoated flow diverters included p64, Derivo2 and Evolve. Coated and uncoated flow diverters were matched by location and diameters (within 20% difference) of distal and proximal landing zones and antiplatelet treatment (DAPT and SAPT). 7 patients were treated with 2 flow diverters, 7 coated and 7 uncoated. Imaging endpoints included lumen diameter, stent diameter, neointimal thickness and neointimal ratio (stent – lumen diameter/stent diameter), rate of occlusion and MRI lesions. Peri- and postprocedural complications and clinical outcomes were evaluated.

Results 71 patients with 90 aneurysms were included. Average early follow up was 4.3 months. Periprocedural lumen diameter decreased on follow up by 27% in uncoated vs. 18% in coated devices. Neointimal thickness on follow up was 0.33 mm in coated vs. 0.45 mm in uncoated devices. Neointimal ratio was 0.32 in uncoated vs. 0.18 in coated devices. There was no difference occlusion rate, complications or clinical outcomes.

Conclusions Coated Flow Divers showed less lumen narrowing and neointimal thickness compared to uncoated devices. This did not affect outcome and occlusion rate on short term follow up.

REFERENCES


Do you have any conflict of interest to declare?: No

P24 VISUALIZATION OF INTRACRANIAL ANEURYSMS TREATED WITH WOVEN ENDBRIDGE (WEB) DEVICES USING ULTRASHORT ECHO TIME MAGNETIC RESONANCE IMAGING (UTE-MRI)

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Introduction/aim Assessing treatment success of intracranial aneurysms with Woven EndoBridge (WEB) devices using MRI is important in follow-up imaging. Depicting both the device conformation as well as any reperfusion is challenging due to susceptibility artefacts. We demonstrate the usefulness of contrast-enhanced 3D-Ultrasound Echo-Time (UTE) sequence in this setting.

Materials and methods 21 MRIs performed after WEB treatment, in 11 patients (8 females) with a total of 13 treated aneurysms (6 anterior communicating, 5 basilar, 2 medial cerebral arteries) were prospectively included. All MRIs were performed on the same 3-Tesla scanner. Two MRIs in one patient were excluded, due to additional surgical clipping. We compared the visualization of device configuration and reperfusion in 3D isotropic UTE-MRI post contrast (TR: 4.62, TE 0.04ms) with standard time-of-flight (TOF) angiography without and with intravenous contrast, as well as DSA (available

Basilar artery aneurysms account for 7–8% of all intracranial aneurysms. They are often wide necked, thereby posing a great challenge in their treatment. Endovascular treatment represents the main method of treatment using stents, flowdiverters, balloons and detachable coils. We present a patient with partially thrombosed basilar tip aneurysm, which we treated using the stent-in-stent technique. A 35 years old female presented with dizziness and gait disturbances. Brain MRI with MR angiography was performed and has shown a giant partially thrombosed basilar tip aneurysm with brainstem compression.

On admission the patient was adynamic, bradypysoric, she was walking with aid. She complained of double vision, nystagmus and inability to swallow solid food. Due to clinical deterioration, brain CT scan was performed and has shown the presence of hydrocephalus, thus the VP shunt placement procedure was performed. Endovascular treatment was performed several days later. Patient was prepared with dual antiplatelet therapy (Aspirin and Plavix) for 3 days before the intervention. VerifyNow has shown that the patient was Plavix hyper-responder (PRU 7).

DSA has shown giant basilar tip aneurysm. In the further course of the procedure jailing technique was performed, followed by stent in stent technique with LVIS and LVIS junior stents. Postprocedural course went uneventful. 6 months clinical follow-up showed complete remission of almost all symptoms with complete occlusion of the aneurysm without neuroradiological or neurological complications. Our case report has shown that stent-in-stent technique, used as homemade flowdiverter, can be a suitable, safe and technically feasible alternative treatment option for the basilar tip aneurysms. However further larger studies are required to assess long term complications, such as aneurysmal recanalisation, in these patients.

P23 STENT IN STENT FOR THE TREATMENT OF GIANT BASILAR ANEURYSM

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References


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P22 SHORT TERM IMAGING ENDPOINTS OF FLOW DIVERTER IMPLANTS WITH AND WITHOUT COATING FOR TREATMENT OF BRAIN ANEURYSMS: A MATCHED PAIR ANALYSIS

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