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Introduction/Purpose: Flow diversion represented a paradigm shift in the treatment of cerebral aneurysms. Previously considered ‘difficult to treat’ aneurysms could be successfully treated endovascularly. Coverage of side branches with subsequent thromboembolic complications or even vessel occlusion remained a concern. We here present our 10-year experience with flow diversion for treatment of anterior choroidal artery aneurysms.

Materials and Methods: Retrospective review of a prospectively maintained neurointerventional database and identification of all patients who underwent flow diverter placement for treatment of an anterior choroidal artery aneurysm between April 2012 and March 2022. Patient demographics, procedural data, imaging follow-up results and clinical outcome information was collected.

Results: A total of 19 patients (15 females) were identified. Patient age ranged from 17 to 72 years (mean 55 years). Two aneurysms were previously treated with coil embolization but showed recanalization. Mean aneurysm diameter (largest dimension) was 3.5 mm. Eighteen patients were treated with a pipeline embolization device and 1 patient with a Surpass Streamline flow diverter. One single flow diverter was implanted 18 cases. One case required placement of a second device in telescopic fashion due to distal fore shortening of the device and uncovering of the aneurysm neck. Additional coiling was performed in one case. All patients were maintained on dual antiplatelet therapy for at least 6 months. No thromboembolic complications were encountered. Two patients did not have any follow-up exam. Six-month follow-up angiogram was available in 17 patients and showed complete occlusion in 12 cases (70.6%), near complete occlusion in 4 cases (23.5%) and partial occlusion in 1 case (5.9%). One patient with near complete occlusion progressed to complete aneurysm occlusion at 6 months. Another patient with near complete occlusion at 6 months showed stable occlusion status at 1 year follow up. Two patients with near complete and one patient with partial aneurysm occlusion at 6 months are not yet due for another follow up. Nine patients underwent a 12-month follow-up and 4 patients were seen for a 3-year diagnostic angiogram follow-up. No delayed complications were observed.

Conclusion: Flow diversion for anterior choroidal artery aneurysms is a safe and effective treatment option.

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P-015 IMPLEMENTATION OF A COGNITIVE DYSFUNCTION SCREENING PROTOCOL AFTER ANEURYSMAL SUBARACHNOID HEMORRHAGE

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Background: Implementation of a standardized cognitive assessment protocol after aneurysmal subarachnoid hemorrhage (aSAH) has not been reported in the literature. Despite frequency of post-aSAH cognitive impairment and recommendations to perform cognitive assessment on all stroke patients. The aim of this study is to implement an evidence-based protocol for cognitive dysfunction screening and management after aSAH. Methods: A cognitive dysfunction screening protocol was developed, which included the Montreal Cognitive Assessment (MoCA) tool. Patients with identified cognitive dysfunction defined as MoCA score <26 were referred to neurocognitive rehabilitation and those with MoCA score 26–29 were referred for neuropsychological evaluation. The modified Rankin scale (mRS) was also used to assess functional status. Following a peer-led education session with nurses and physicians, the protocol was implemented over a six-month period in the Cerebrovascular Clinic associated with a large academic medical center.