Abstract E-042 Figure 1

cases of CHS following endovascular embolization and discuss diagnostic and differential challenges.

Cases Patient 1 is a 64yo woman who underwent elective stent-assisted-coiling of an unruptured 11×10 mm right MCA trifurcation aneurysm without intraoperative complication. Immediate and delayed post-treatment angiography showed patent vasculature with no extravasation of contrast. Initial post-procedure neurological exam was normal; 4 hours later, she developed left hemiplegia. CT showed a large right intraparenchymal parietal hematoma with local cerebral edema distal to aneurysm treatment (figure A). Follow up diagnostic angiography showed no extravasation from the MCA and no change in the treated aneurysm. Transcranial doppler showed proportional increase in right MCA and right ICA flow velocity, concerning for hyperperfusion. During decompressive craniotomy, multiple small arterial intraparenchymal bleeders were encountered.

Patient 2 is a 70yo man who underwent two stage stent assisted coiling of an unruptured ACOM aneurysm. Post-stenting but pre aneurysm coiling showed uniform contrast distribution (figure B), whereas post aneurysm coiling showed persistent contrast blush in the temporal and parietal regions (figure C, yellow arrows). This correlated with cortical edema found on CT twenty-four hours post-procedure. Cortical edema resolved the following day with conservative blood pressure management.

Discussion CHS following endovascular stent-coiling of aneurysms is not described in literature. Differential diagnosis considerations for these cases include vasospasm, which is far more prevalent, and contrast induced encephalopathy (CIE), which is rare. In both cases, increased arterial flow to the territory of the parent vessel was demonstrated. This is in contrast to vasospasm, where reduced flow results in ischemic infarct. CIE has also been reported to have decreased perfusion in studies which utilize flow imaging and is generally associated with posterior circulation angiography and symptoms. In contrast, our cases demonstrated increased flow, so we strongly favor CHS as the diagnosis. However, the incidence and mechanism of CHS, as well as CVS and CIE, in endovascular treatments requires more in-depth evaluation.

Disclosures P. Yager: None. L. Lin: None. J. Fraser: 2; C; Stream Biomedical, Medtronic. 4; C; Fawkes Biotechnology. A. Alhajeri: None.

E-043 DOUBLE MICRO-CATHETER TECHNIQUE AS A REASONABLE STRATEGY FOR COILING OF A RUPTURED WIDE-NECKED ANEURYSM IN DEVELOPING COUNTRY

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Introduction Wide-necked aneurysm will always be a challenge to treat, even with many adjunctive techniques. In a developing country where the equipment is limited, also the cost of the treatment is another important consideration, the less cost and equipment will be preferable. In ruptured case, use of stent also has disadvantages due to necessity of anti-platelet aggregation.

Materials and methods The author present his experience in treating cases of ruptured wide-necked aneurysm with double micro-catheter.

Results Tight packing of the coils with preservation of parent artery can be achieved with this technique. There were no rupture during coiling, no mortality in one-year follow-up.

Conclusion Double micro-catheter technique is useful and effective in treating wide-necked aneurysm, especially in ruptured case.

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E-044 PACKING DENSITY, RECURRENCE AND COMPLICATION RATES BETWEEN VARIOUS ENDOVASCULAR ANEURYSM TREATMENT MODALITIES: ANALYSES FROM THE SMART REGISTRY

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Background Over the past decade, coil embolization of intracranial aneurysm has proved to be both safe and effective. A major concern coil embolization is the recurrence of aneurysm requiring re-treatment. Low coil packing leading to coil compaction has been associated with a higher risk of aneurysm recurrence. In this study, we evaluate packing density,