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**

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aneurysm recurrence and complication rates associated with different endovascular techniques.

Methods The prospectively collected data from the SMART registry was interrogated. Only patients with unruptured aneurysms were included in these analyses. Patients were divided into four groups according on the endovascular treatment modality used: group 1 (primary coiling), group 2 (balloon assisted coiling), group 3 (stent assisted coiling), and group 4 (balloon and stent assisted coiling). Baseline characteristics, aneurysm features, packing density, complication and recurrence rates were compared between the groups.

Results Total of 607 patients were included in this study. Of those, 240 were in group 1, 68 in group 2, 287 in group 3, and 22 in group 4. Median age was 61 (IQR, 53–69), and 75% were females (table 1). There was no difference in aneurysm size, or duration of coil deployment. Wide neck aneurysms were more prevalent in groups 3 and 4 compared to groups 1 and 2 (group 3; 72.8%, group 4; 81.8%, group 1; 57.9%, and group 2; 61.8%, P=0.008). While there was no difference in packing density to stent or stent plus balloon assisted coiling, though with lower rates of aneurysm obliteration at 1 year. Combined stent and balloon assisted coiling was associated with higher rates of immediate complications. Further prospective studies are warranted to confirm our findings.

Conclusions In patients with unruptured intracranial aneurysms, the use of primary coiling and balloon assisted coiling was associated with similar packing density to stent or stent plus balloon assisted coiling, though with lower rates of aneurysm obliteration at 1 year. Combined stent and balloon assisted coiling was associated with higher rates of immediate complications. Further prospective studies are warranted to confirm our findings.