**Introduction** – Complex cerebrovascular lesions, including aneurysms, dissections, fistulas, and carotid infiltration may require vessel sacrifice when direct treatment of the lesion is not feasible. Endovascular vessel sacrifice can be achieved with coiling, liquid embolic agents (e.g. Onyx, nBCA), or a combined approach using a small number of coils to support a matrix of liquid embolics. Reports of endovascular vessel sacrifice, especially using the combined approach, are limited. While both single agent and combined approaches have demonstrated high rate of occlusion, they are associated with high rates of thromboembolic events and permanent morbidity.¹⁻³

**Methods** – A total of 39 patients were treated with endovascular vessel sacrifice using coils, liquid embolics (Onyx or nBCA), or both. All procedures were performed by one surgeon at two institutions between 2008-2017.

**Results** – Nineteen patients were female, 20 were male with an average age of 51 years. Aneurysms were the most commonly treated pathology. Ten of the 39 patients (26%) were treated with both coils and liquid embolics. When using the combined approach, nBCA was used in all but one patient. Fewer coils were deployed with the combined approach than when single-modality coiling was used. Complete or near-complete occlusion was achieved in all patients.

**Conclusion** – We report a case series of patients treated with endovascular vessel sacrifice, in whom we found a high rate of occlusion and low rate of complications for both single-agent and combined treatment approaches. Our data demonstrates that the combined approach is highly effective and without a significant increase in complications compared to single agent treatment. Endovascular vessel sacrifice using coils, liquid embolics, or both is a safe and effective treatment option for vascular lesions not amenable to direct treatment. The simultaneous use of both coils and liquid embolic agents may mitigate the risks associated with single-agent vessel sacrifice.

**References**