



## Double Vision Saves Patient From Imminent Aneurysm Rupture

### DIVISION OF INTERVENTIONAL NEURORADIOLOGY

*Presents a patient case treated by the team members of the division and physicians and staff of the UCLA Comprehensive Stroke Center*

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### PATIENT PRESENTATION

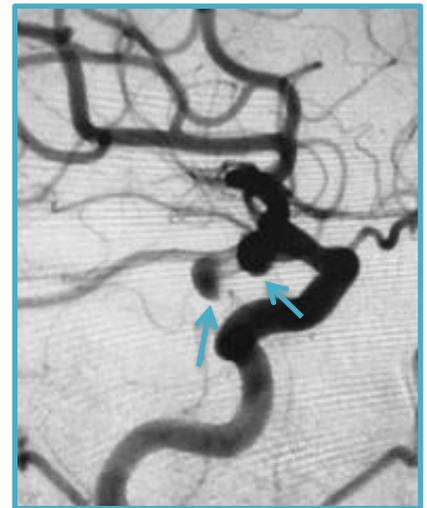
- 57-year-old woman with no aneurysm development risk factors and a vascular risk factor of dyslipidemia presenting with a 3-week history of right eye ptosis, ophthalmoplegia and diplopia. She was diagnosed with a pupil-involving 3<sup>rd</sup> nerve palsy. Worrisome for a vascular process, she was referred by her ophthalmologist for vascular imaging.

### EVALUATION AND IMAGING

- Non-contrast CT of brain showed no parenchymal lesions and CTA suggested a multi-lobulated aneurysm of the right posterior communicating artery, best seen on diagnostic angiogram (Fig. 1).

### INTERVENTION PERFORMED

- Treatment was aimed at securing the proximal aneurysm sac and neck, leading to stagnation in the distal, contained rupture sac, thereby alleviating mass effect on the oculomotor nerve.
- Balloon assisted coil embolization was performed with successful embolization of the aneurysm and significant stagnation in the contained rupture sac (Fig. 2, 3, 4).



**Figure 1:** Diagnostic cerebral angiogram reveals PCOMM aneurysm with contained rupture



**Figure 2:** Post embolization with significant stagnation of flow in the contained rupture sac

# INTERVENTIONAL NEURORADIOLOGY



**Brain Hemorrhage, Aneurysm/AVM/fistulae**

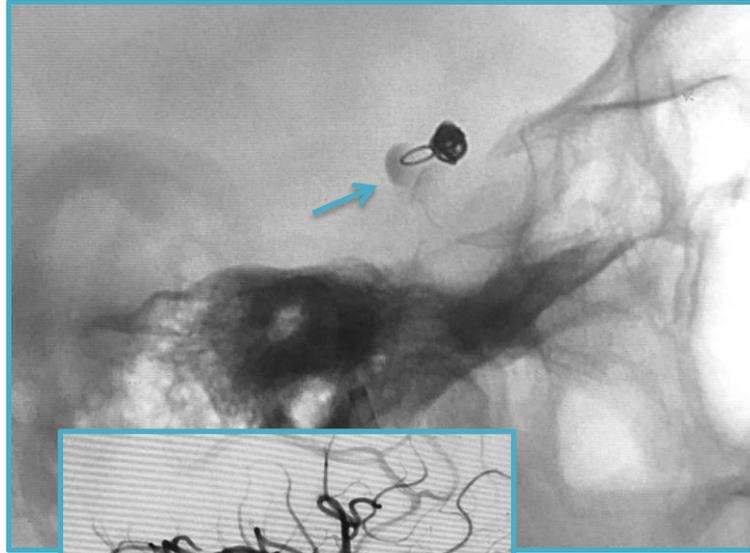
- Aneurysm coiling
- Stent/balloon assisted aneurysm coiling
- Flow diverter stent device embolization
- AVM/Dural fistulae embolization
- Venous Sinus Thrombectomy/Thrombolysis
- Direct transcatheter embolization

**Chronic Occlusive Cerebrovascular Disease**

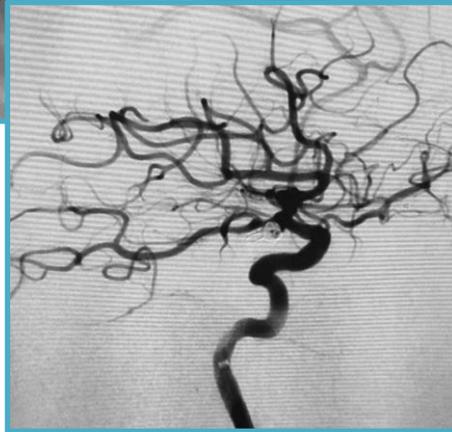
- Extra/Intracranial Angioplasty/Stenting
- Venous Sinus Angioplasty/Stenting

**Head/neck/orbit tumors & vascular malformations, epistaxis**

- Endovascular embolization
- Direct percutaneous embolization



**Figure 3:** Post embolization, unsubtracted lateral view showing coil configuration and stagnation within the contained rupture sac



**Figure 4:** Post embolization, lateral projection of left ICA angiogram showing final embolization outcome with no filling in the aneurysm sac presumed to exert mass effect on the oculomotor nerve

## PATIENT OUTCOME



- The patient tolerated the procedure well.
- She was started on a steroid taper in an attempt to improve her 3<sup>rd</sup> nerve palsy and although she did not immediately clinically improve from an ocular standpoint, we expect the improvement to occur over a few month period.
- Her presenting clinical symptoms allowed for discovery of the aneurysm and she imminently escaped the deleterious outcome of aneurysmal rupture.
- A 6 month follow-up angiogram is planned.

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**Division of Interventional Neuroradiology – A Leader in Neurovascular Care and Research**

- Invented the Merci retriever – the 1<sup>st</sup> endovascular device for acute stroke therapy
- Invented GDC and Matrix coils – the leading tool for aneurysm treatment around the world
- Developed Onyx liquid embolic material – the leading therapy for brain vascular malformations



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