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INTERVENTIONAL NEURORADIOLOGY

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Patient with ruptured dissecting aneurysm – Treatment with coiling and new flow diverting stent

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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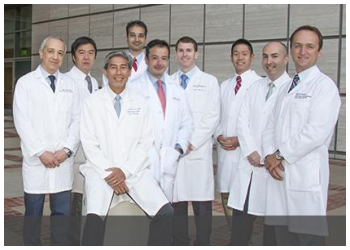

PATIENT PRESENTATION

- 43 year old woman who presented with sudden onset severe headache.
- On admission she had mild left sided weakness and severe headache.

EVALUATION AND IMAGING

- CT showed subarachnoid hemorrhage (Fisher grade 3).
- CTA and angiogram showed fusiform aneurysm in the right posterior cerebral artery (P2 segment) (Fig. 1).

INTERVENTION PERFORMED

- Endovascular embolization using coils was performed (Fig. 2).
- Follow-up control angiogram in few days showed regrowth of the aneurysm (Fig. 3).
- More embolization using the new generation flow diversion stent (pipeline Flex) and coils were used (Fig. 4, 5).

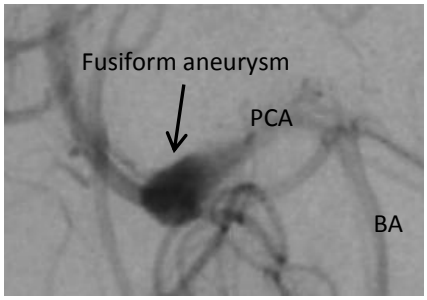

Figure 1: Initial angiogram, antero-posterior view. *Fusiform aneurysm measuring 5mm x 3.8 mm, most likely dissecting, on the P2 segment of the posterior cerebral artery (PCA). BA – Basilar Artery*

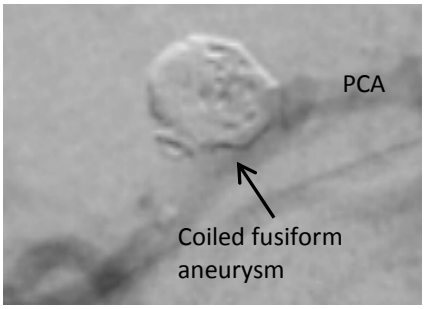

Figure 2: Post-coiling angiogram, antero-posterior view. *Coils filling the aneurysm. PCA - posterior cerebral artery.*

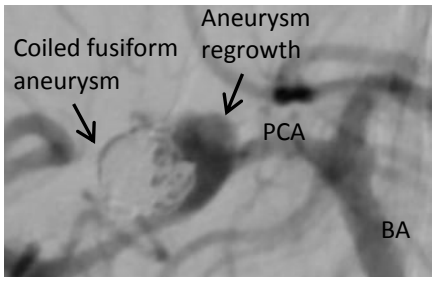

Figure 3: Post-coiling follow-up angiogram, lateral view. *Coils filling only part of the dissecting aneurysm, aneurysm growth. PCA - posterior cerebral artery, BA – Basilar Artery*

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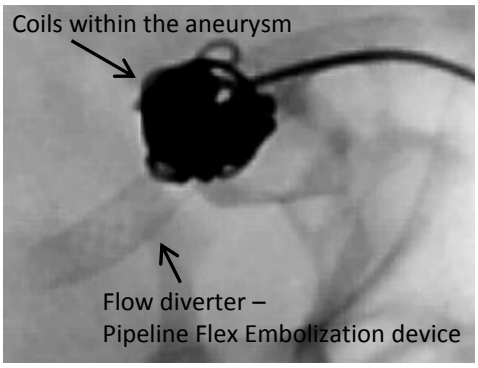

Figure 4: X-ray view (fluoroscopy) of the implanted flow diverter – Pipeline Flex Embolization device and coils.

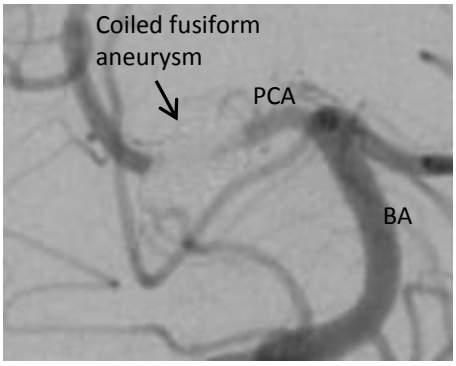

Figure 5: Final angiograms – AFTER EMBOLIZATION, lateral view. *No contrast filling of the aneurysm, PCA - posterior cerebral artery, BA – Basilar Artery.*

Procedures provided by DINR for adult and pediatric patients

Acute Ischemic Stroke
Acute Thrombectomy/Thrombolysis
Extra/Intracranial Angioplasty/Stenting

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 transcutaneous 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

PATIENT OUTCOME

- The patient tolerated all the procedures well and recovered without complications. Neurologically she is close to her baseline.
- 6 months follow up angiogram confirmed the occlusion of the aneurysm and patency of the stent with good flow (Fig. 6).

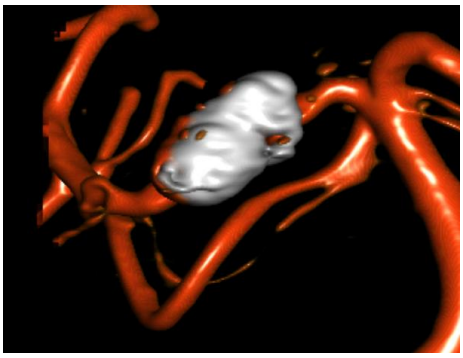

Figure 6: Final angiograms – AFTER EMBOLIZATION, antero-posterior view. *3D reconstruction of the angiographic images showing coils (gray mass) in the aneurysm.*

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

- Invented the Merci retriever – the 1st 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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