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

**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).
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 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.

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

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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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