Patient from overseas selects UCLA Interventional Neuroradiology to treat him – dangerous fistula successfully cured

**PATIENT PRESENTATION**

- 60-year-old man from overseas reported sudden onset of very severe 20/10 headache (HA) few months prior his visit with us.

- HA subsided to 6/10, but persisted almost every day.

- His primary care MD ordered MRI (Fig 1.), which showed unusually dilated veins in the area of the left tentorium, suspicious for vascular malformation.

- He decided to seek treatment in the US and contacted our UCLA Interventional Neuroradiology service for consultation.

**EVALUATION AND IMAGING**

- Our conventional catheter angiogram confirmed transverse sinus dural Arterio-Venous Fistula (dAVF) with dangerously dilated cortical veins, Cognard grade IV, with high risk of sudden brain hemorrhage (Fig. 2).

*Figure 1: MRI of brain with contrast shows abnormally dilated veins (arrow).*

*Figure 2. Catheter angiogram lateral/side (Lat) view and antero-posterior/frontal (AP) view shows abnormal connection of the arteries and veins, fistula, (black arrow) and the abnormally dilated cortical veins (white arrow).*
**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 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

**INTERVENTIONAL NEURORADIOLOGY**

**INTERVENTION PERFORMED**

- We performed successful minimally invasive endovascular embolization using liquid embolic material Onyx to close off the site of dAVF (Fig. 3).

- Our final control angiogram showed complete blockage of the dAVF and therefore cure of his lesion (3B.)

**PATIENT OUTCOME**

- The patient tolerated the procedure very well.

- He was discharged home the next day.

- 6 months follow-up angiogram confirmed complete occlusion of the dAVF.

- He reports significant decrease on his HA frequency and severity. He is back to his regular activities.

**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

---

**Figure 3. A. Pre-treatment angiogram, Lateral/side view** shows the area of dural fistula (red dashed circle) with feeding arteries (black arrow) and dilated cortical veins (white arrow).

**B. Post-treatment angiogram, Lateral/side view** shows completely occluded area of dural fistula (red dashed circle).