Trans-Brachial Approach to Ruptured Aneurysm Embolization

**Patient Presentation**

- 73 year old woman with high risk cardiac disease & atrial fibrillation, on anticoagulation, presenting with acute onset, severe headache.
- Non-contrast CT of the brain demonstrated Fisher grade 4, diffuse subarachnoid hemorrhage and CTA showed an anterior communicating artery (ACOMM) aneurysm (Figure 1).
- Anticoagulation was reversed in light of hemorrhage and the patient presented to the angiography suite.

**Evaluation and Imaging**

- Diagnostic cerebral angiography was performed to better characterize the aneurysm in preparation for possible endovascular embolization (Figure 2).
- In spite of a favorable dome to neck ratio & favorable treatment profile for the aneurysm, aortic arch anatomy posed a particular challenge to system access.
INTERVENTION PERFORMED

- After multiple attempts through the femoral artery route, a brachial artery approach was taken & proved to be the most effective (Figures 3).

THE OUTCOME

- Embolization was completed successfully with the final outcome shown in Figure 5 and the ACOMM aneurysm was protected endovascularly, avoiding open vascular surgery in a high risk cardiac patient.

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