



# and Conference 2021 Case Study: Essentia Health

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Arblom, APRN, NP-C

Internal Neurology Department



# Case Study 1

## **Patient**

- **78-year-old right-handed man**
- **Lives at home independently with his wife**

## **Past Medical History:**

- **Coronary artery disease**
- **Hyperlipidemia**
- **Hypertension**
- **Atrial Fibrillation**

## Presentation

- **EMS called initially after an episode of incontinence, weakness and intermittent slurred speech**
- **On arrival to the outside facility physical examination was notable for right sided tongue deviation and generalized weakness. No focal weakness, speech disturbance or visual changes noted**
- **A stroke alert was initiated at the outside facility and a non-contrast head CT scan was complete**
- **NIHSS: 0**

Thoughts on differentials?





## Transfer to Essentia Health Fargo

- Further clinical information:
  - Has had frequent falls and gait has been unsteady
  - Has regular headaches at base of skull
  - Denies any seizure activity
  - Does take Eliquis for atrial fibrillation



## CT Angio Head/Neck



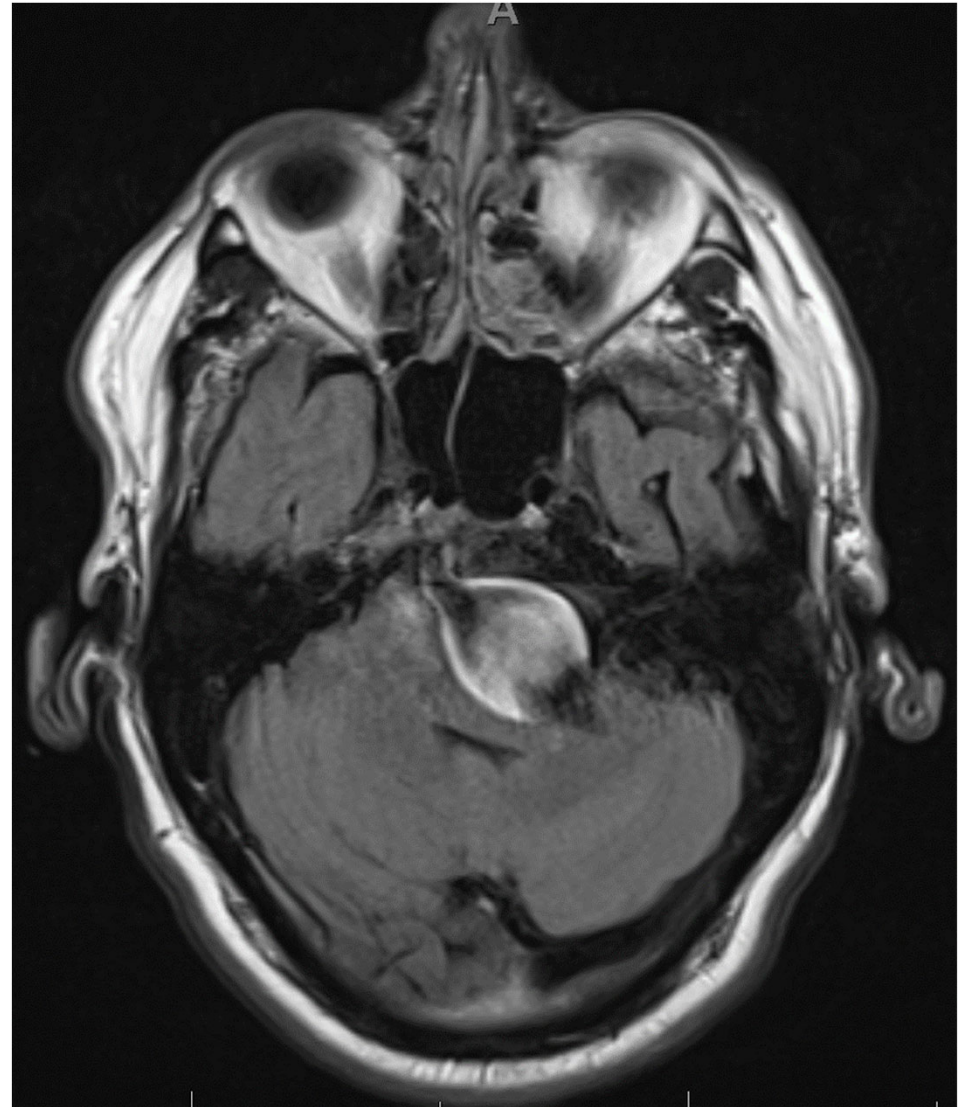
**Giant Basilar  
Artery  
Aneurysm  
3.3cm**



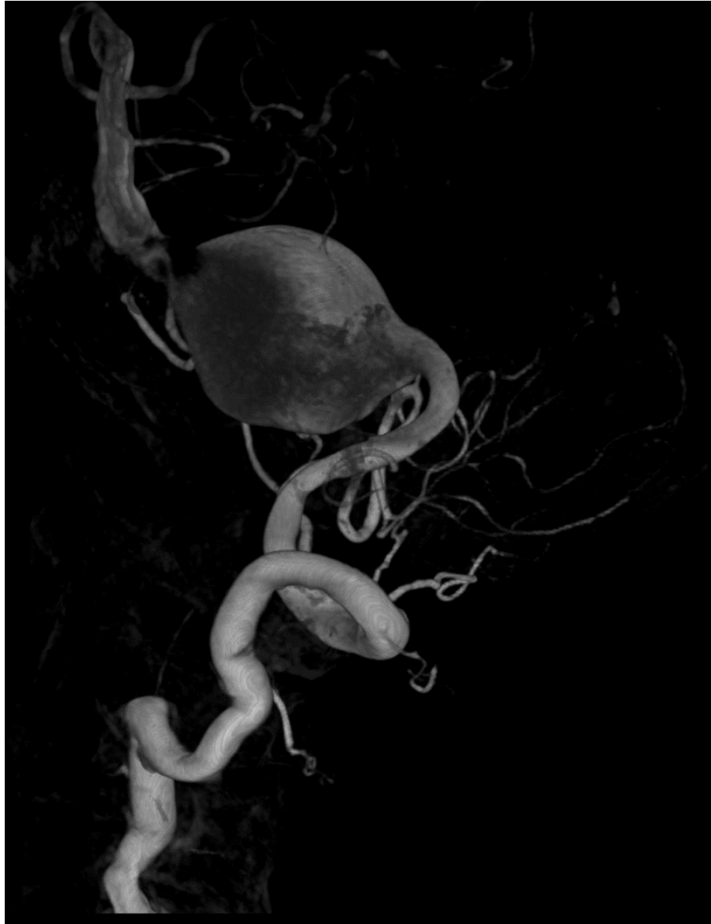
# MRI Brain – FLAIR

## IMPRESSION:

1. No evidence of acute or subacute infarction.
2. Large basilar artery aneurysm, best evaluated on recent prior CT angiogram. This causes rightward mass effect on the pons and medulla with possible signal abnormality at the right pontomedullary junction.
3. The large basilar aneurysm causes mass effect on the fourth ventricle with questionable mild hydrocephalus.

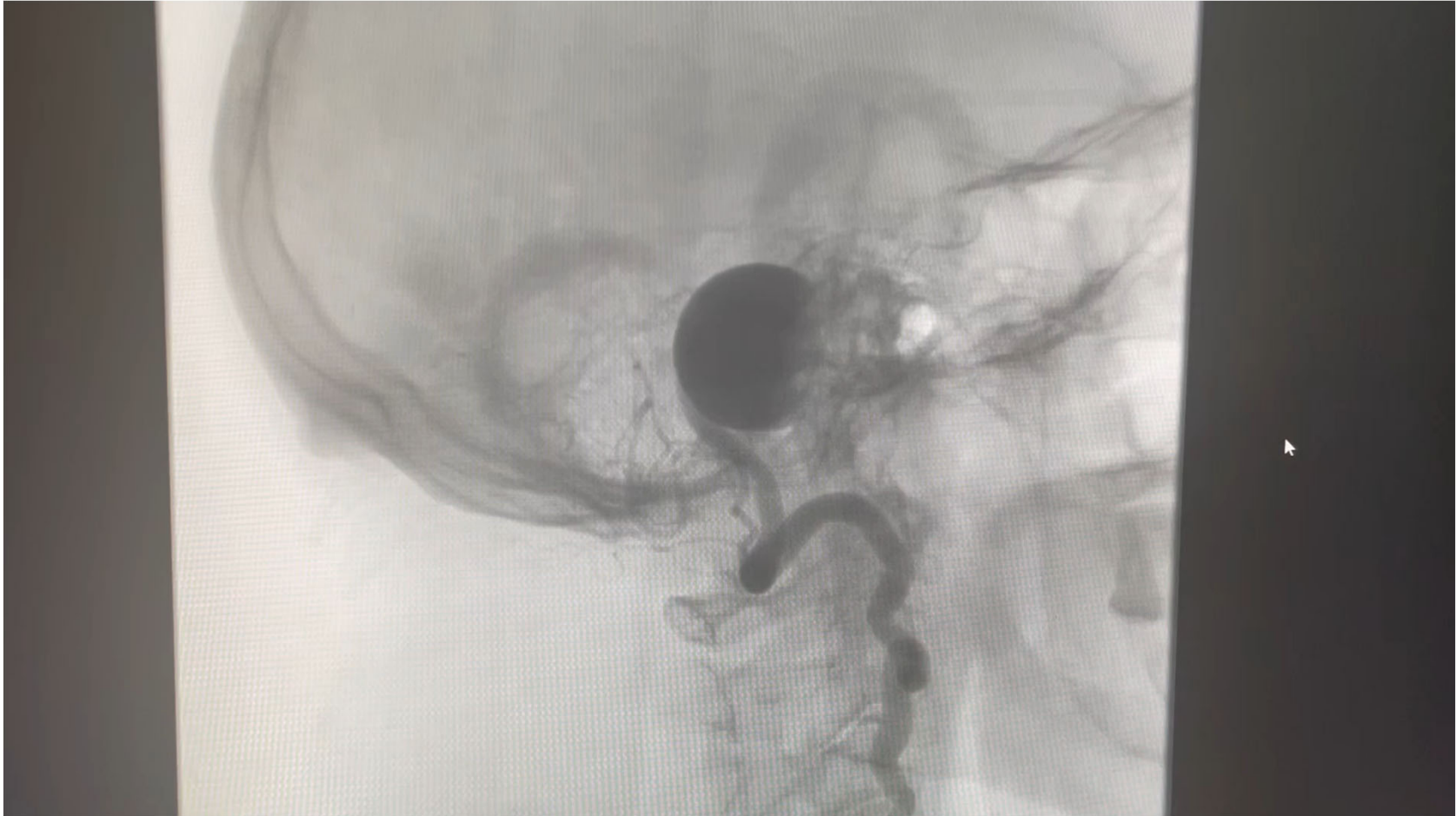


# Diagnostic Cerebral Angiogram

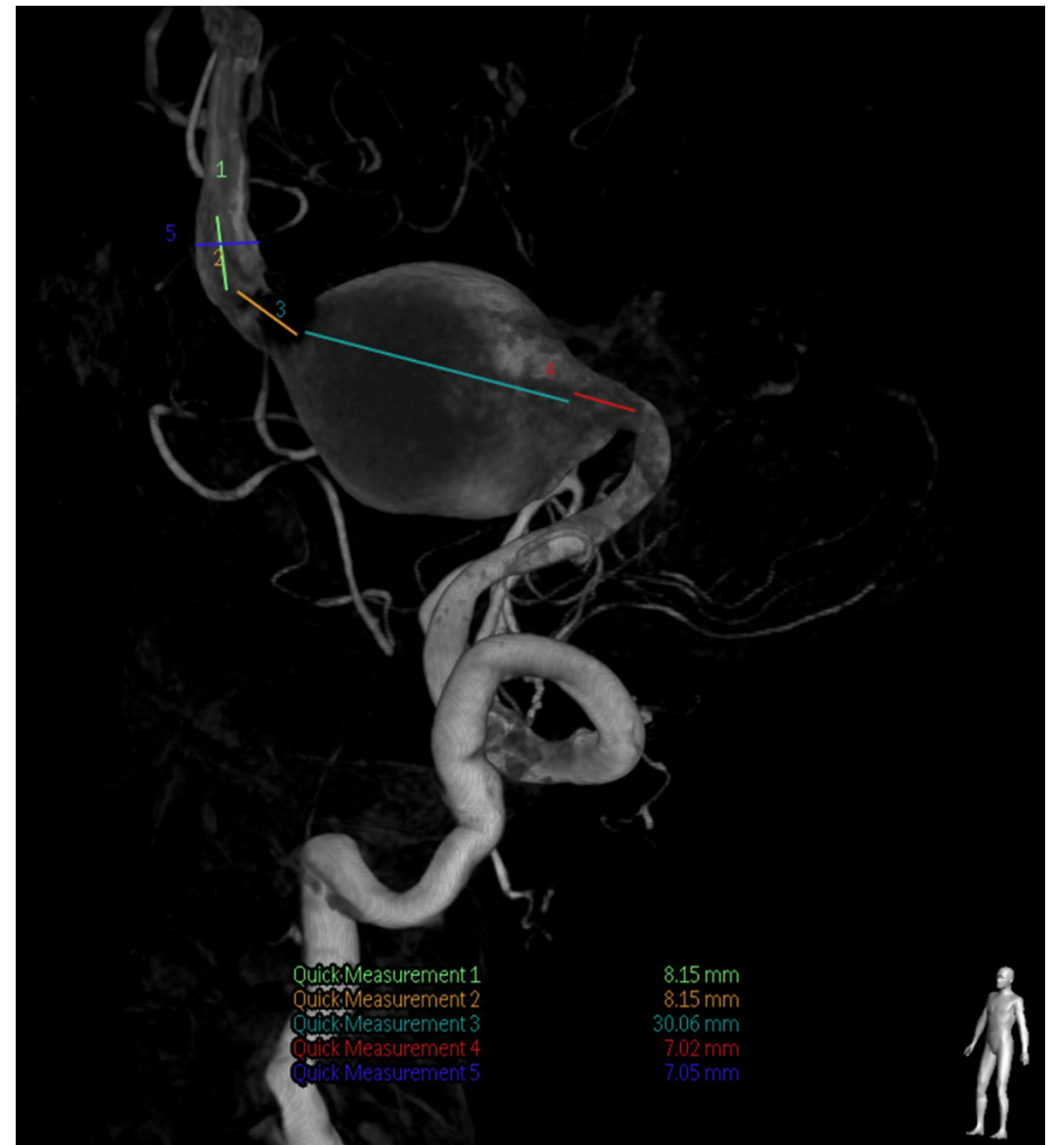
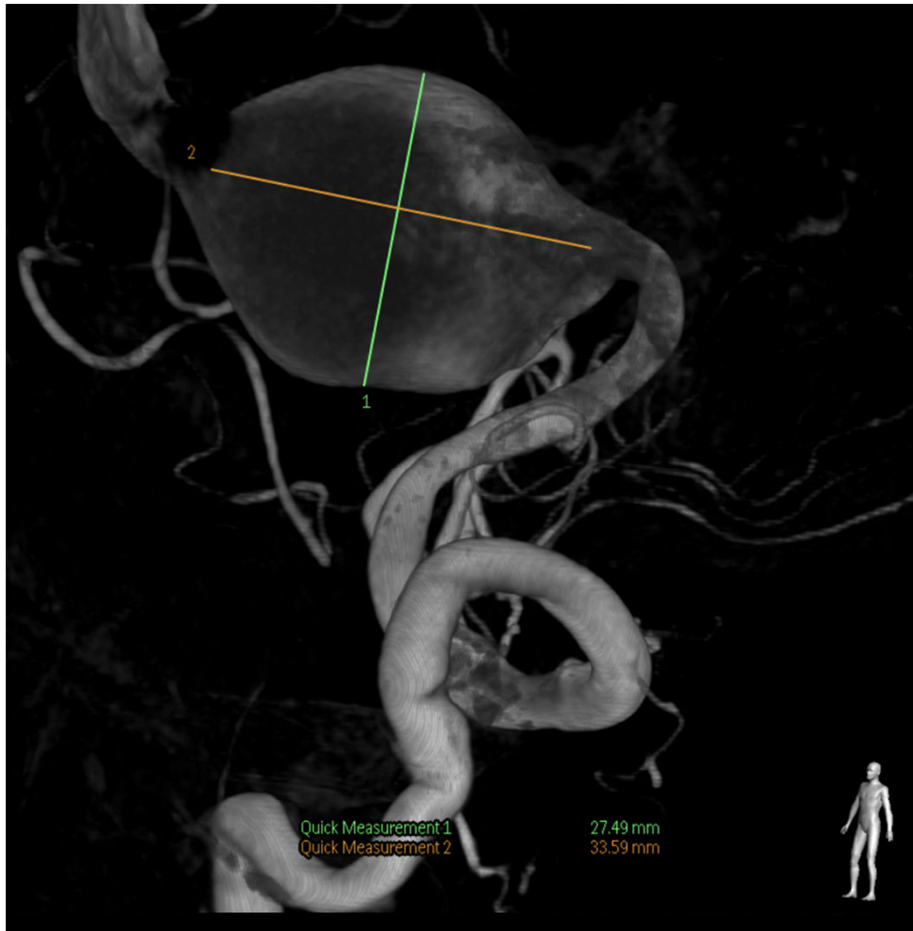




# Diagnostic Cerebral Angiogram

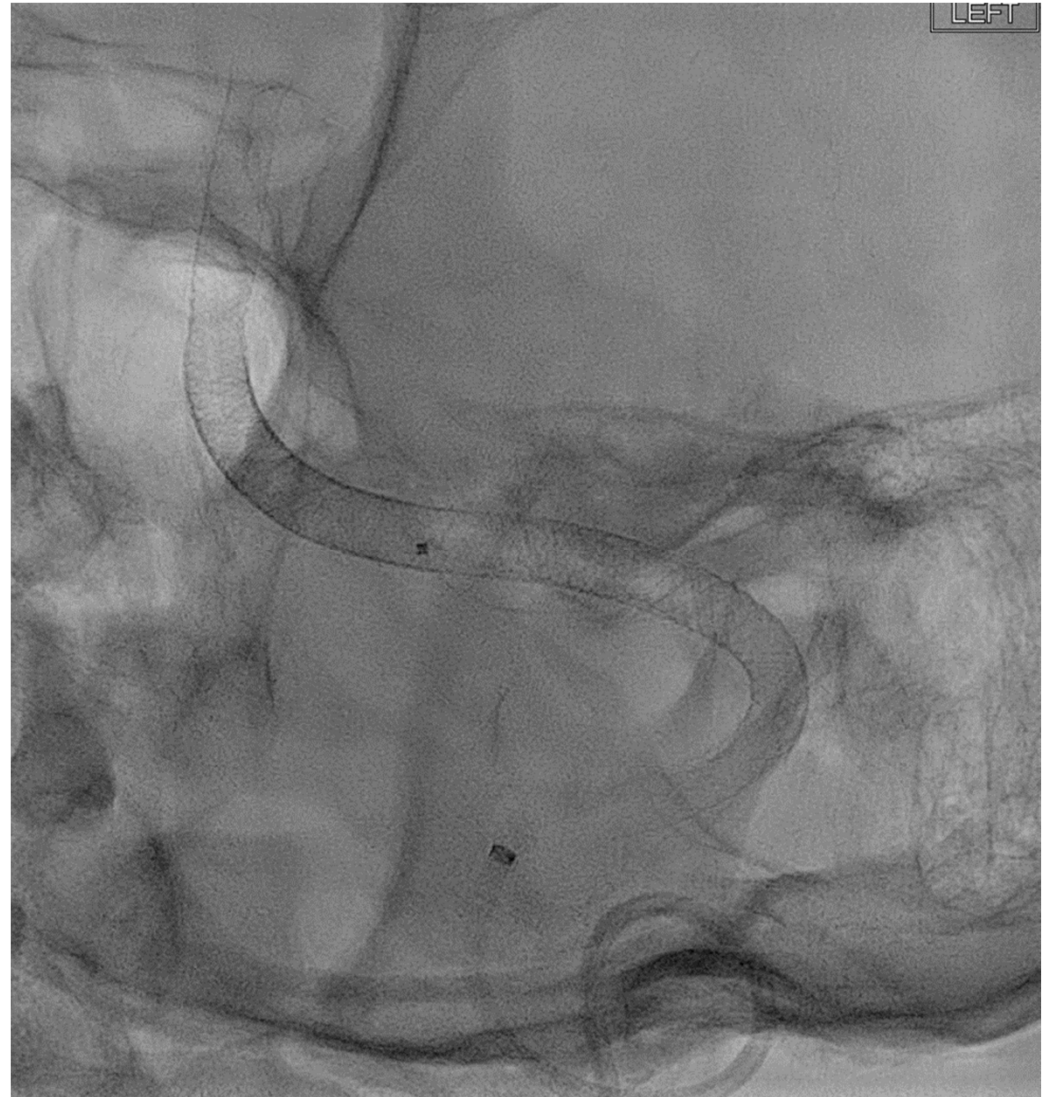


# Treatment Planning



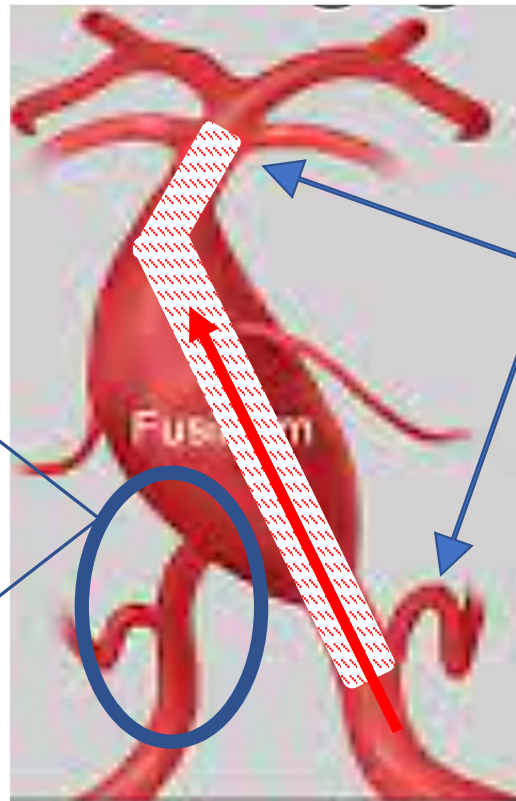
# Pipeline Placement

- ❖ 5 mm x 35mm
- ❖ 5 mm x 16 mm
- ❖ 5 mm x 30 mm (3)
- ❖ 5 mm x 25 mm
- ❖ 5 mm x 20 mm



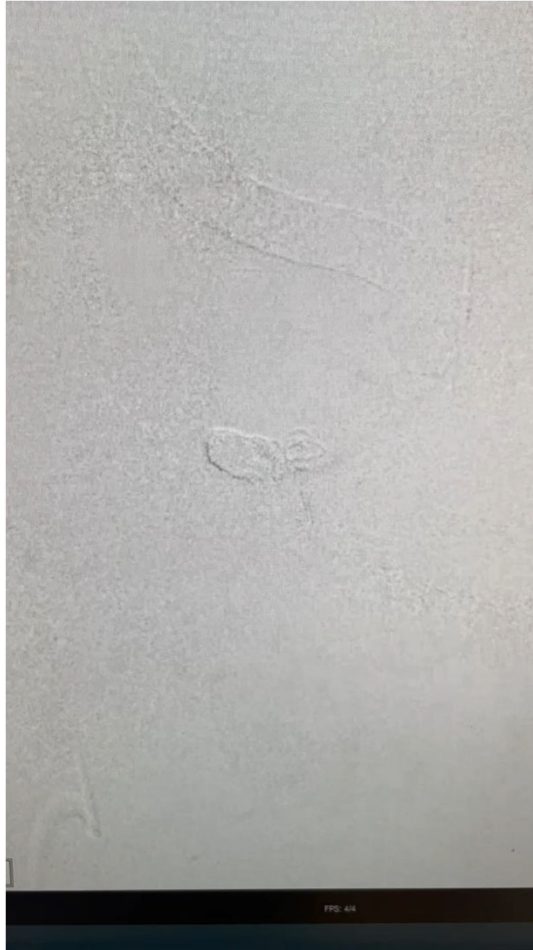
## Other Consideration...

This a  
vertebrobasilar  
junction  
aneurysm. The  
right vertebral  
artery is still  
feeding the  
aneurysm... mrc



Goal Achieved:  
Flow diversion  
through the  
aneurysm

## 2<sup>nd</sup> Stage of Treatment



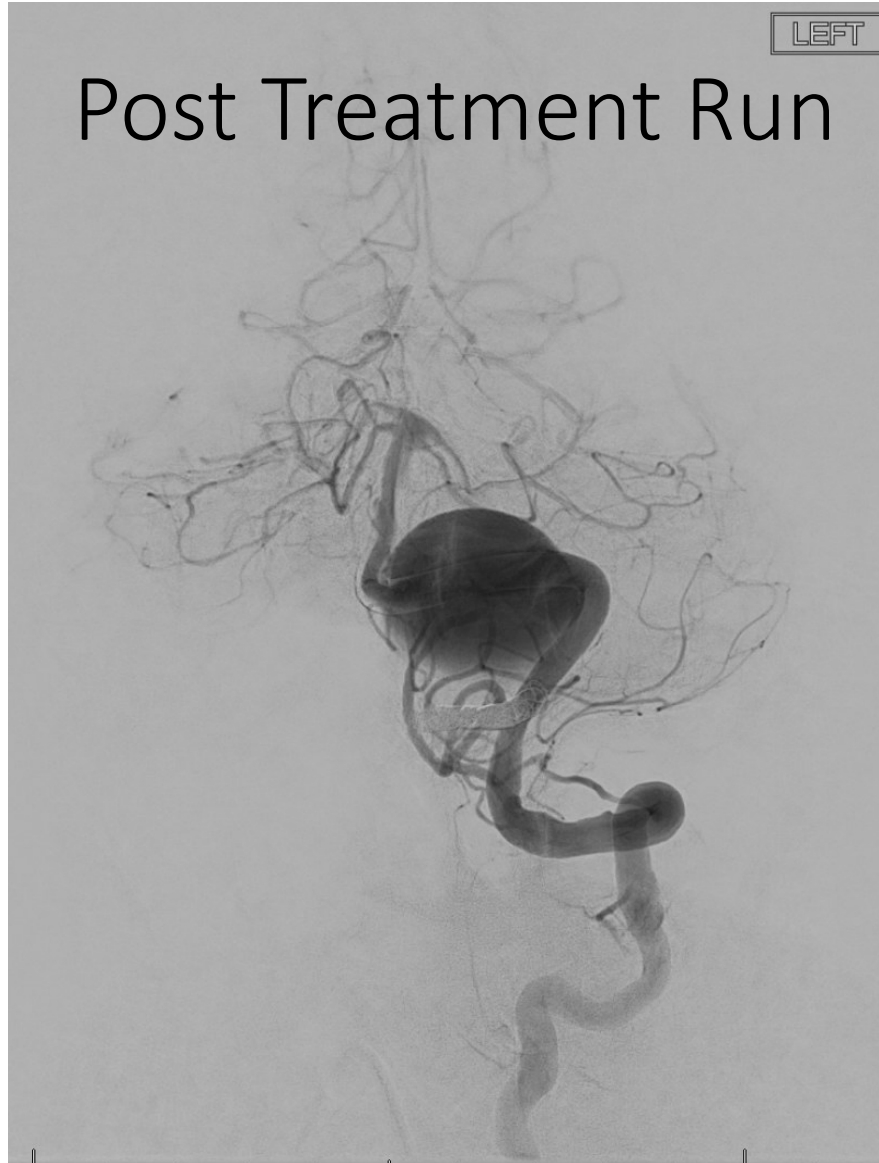
Occlusion of  
the right  
vertebral  
artery  
successful  
after coil  
embolization





LEFT

# Post Treatment Run





## Outcome

- Discharged home with Home Health Services
- Discharged on Eliquis and Plavix
- Follow-up in clinic 1 month later

Thank You

