ECMINT
European Course of
Minimally Invasive Neurological Therapy

# ECMINT 4.4 - Natural history of brain AVMs


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# Thank you!
# - please review case following....

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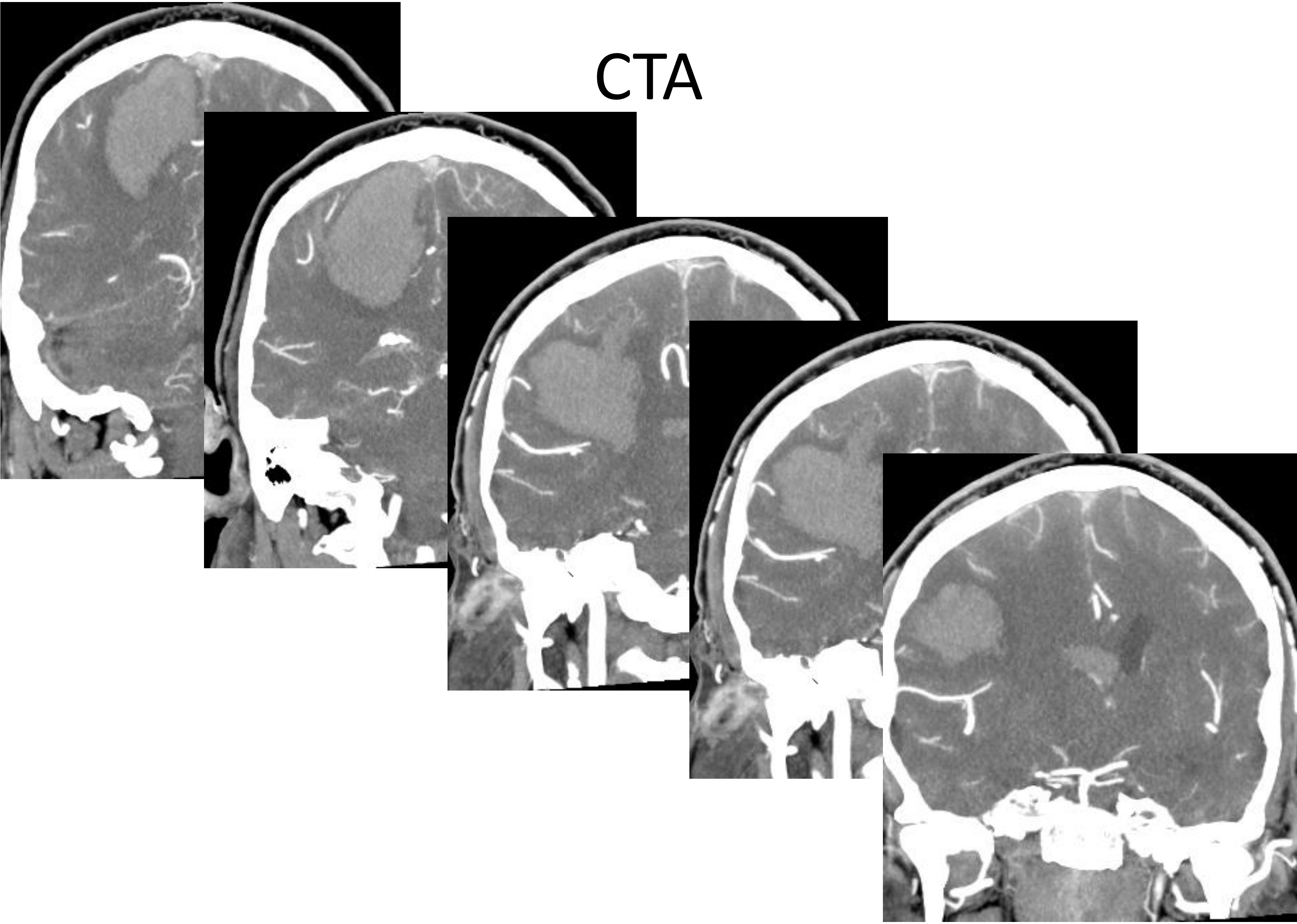
ECMINT Online only:

Case to illustrate/reinforce Natural Hx information & *provide some light relief*

- 46y old with mild hypertension but otherwise fit & well

# CTA



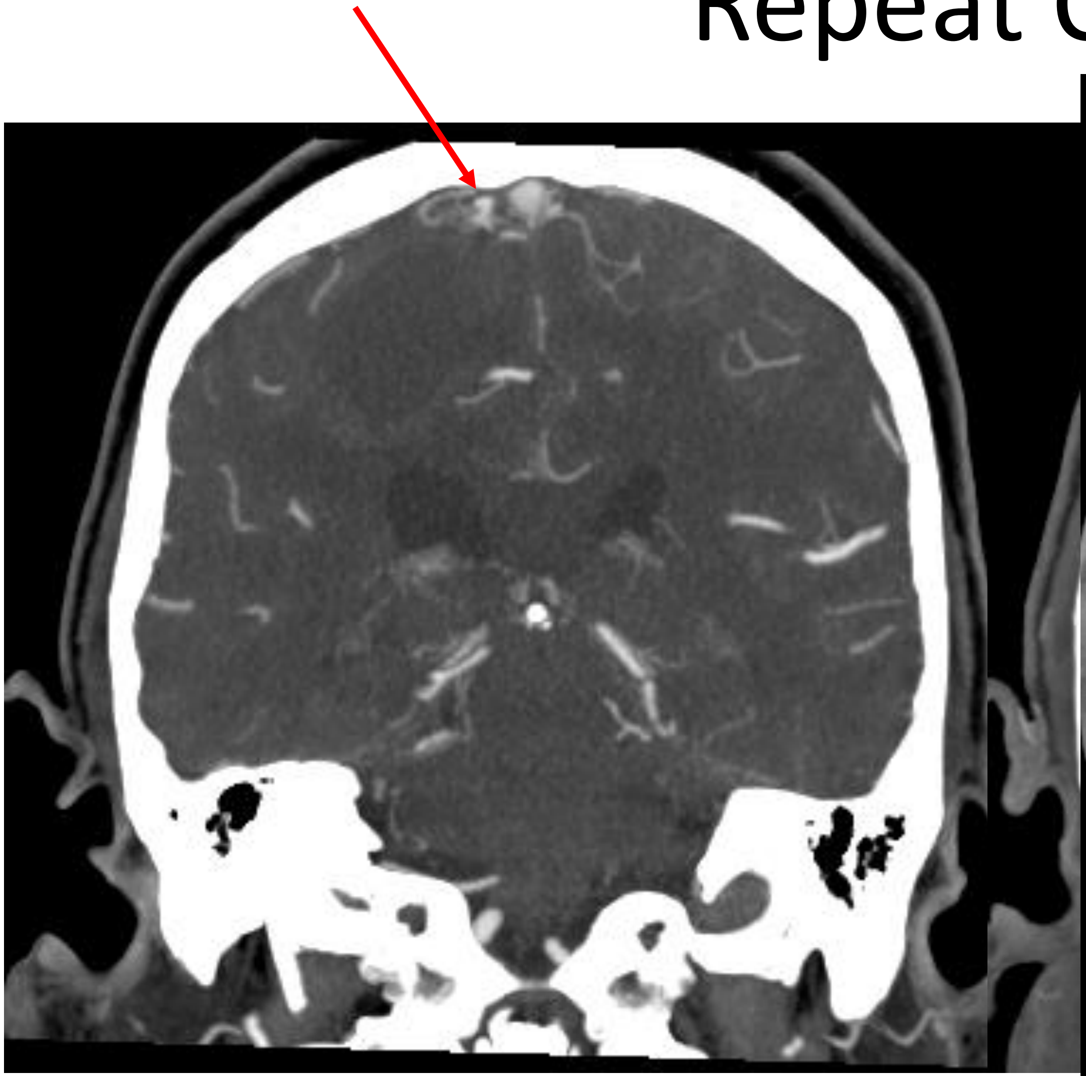
# Your advice?

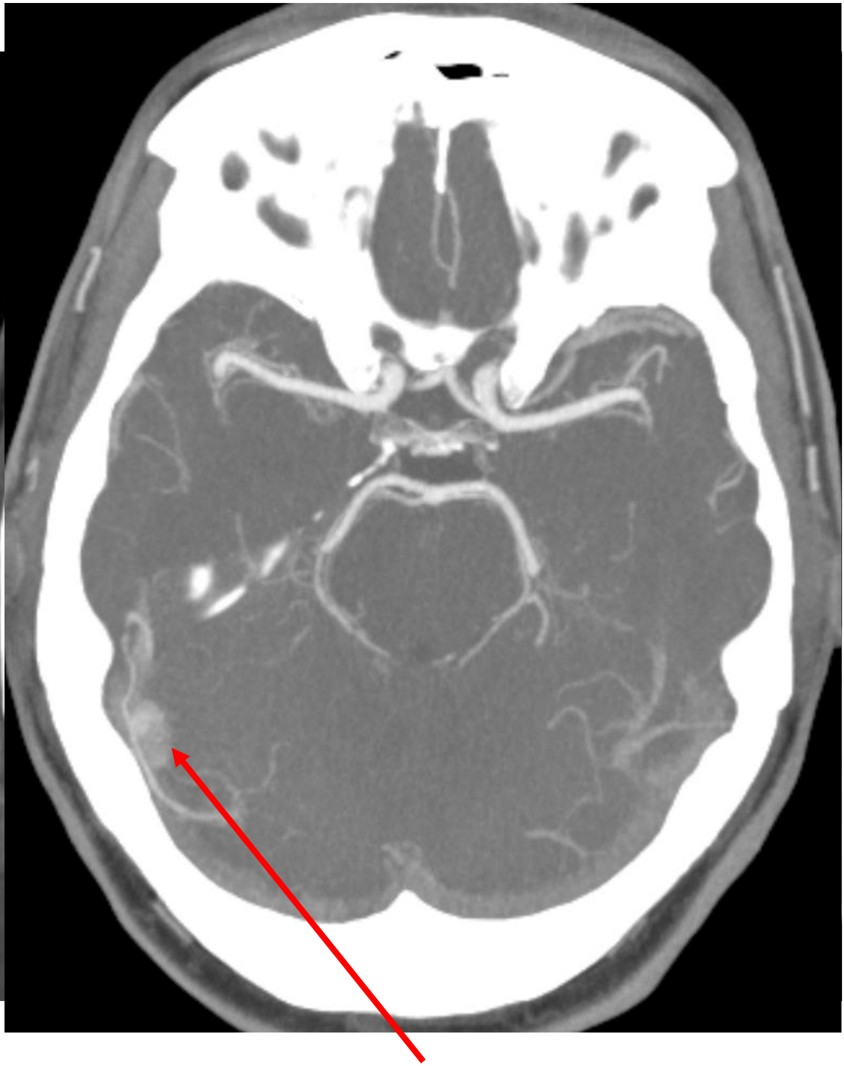
1. Unremarkable, stop
2. Unremarkable → DSA
3. Abnormal → DSA
4. Uncertain, do MRI (if so when?)
5. Other

# What did happen?

- Bleed was early hours 26th Dec
- CTA reported as normal & patient d/c (quite rapidly) to rehab unit
- Only 6/52 later was case reviewed at Stroke MDT & repeat urgent CTA advised
- Applying NHx knowledge:
  - **~1/3 of ICH in younger adults due to AVM**
  - **Very atypical pattern for hypertensive bleed & only mild HT that was well controlled**
  - **So rings alarm bells that good chance of underlying cause**

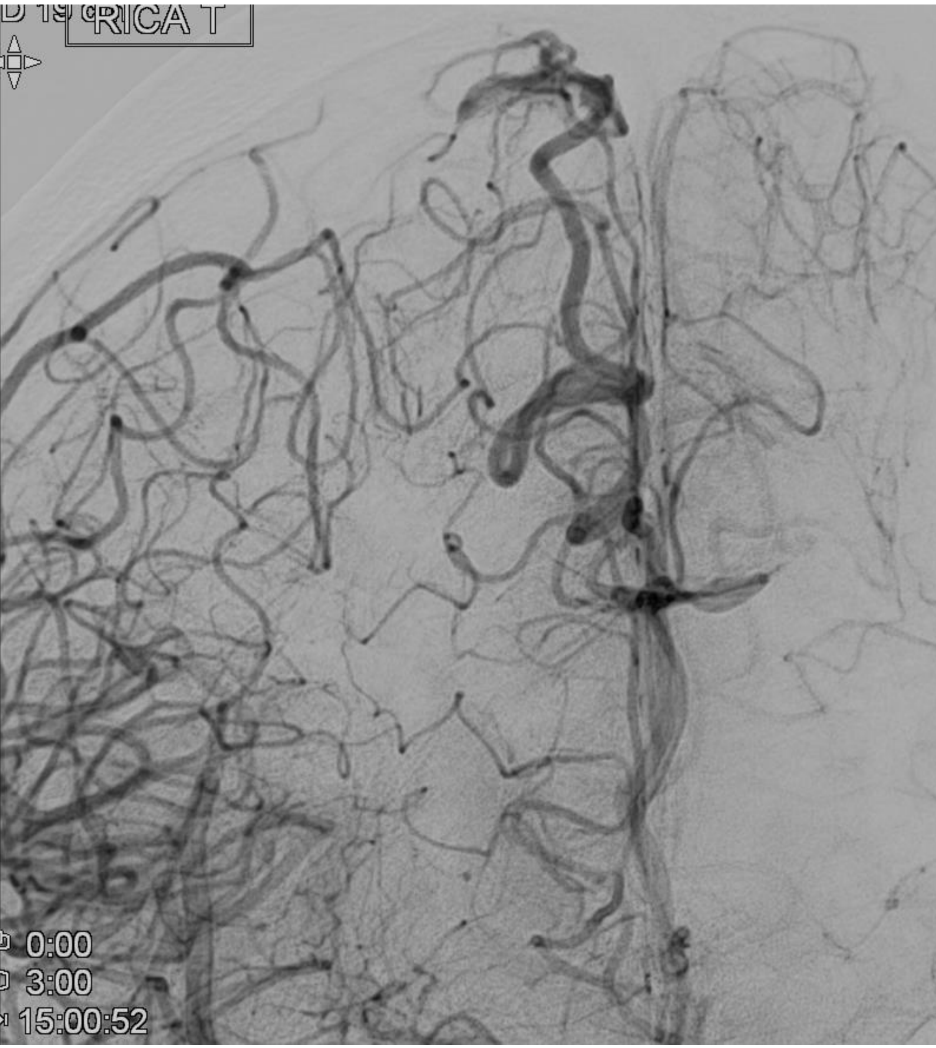
# Repeat CTA

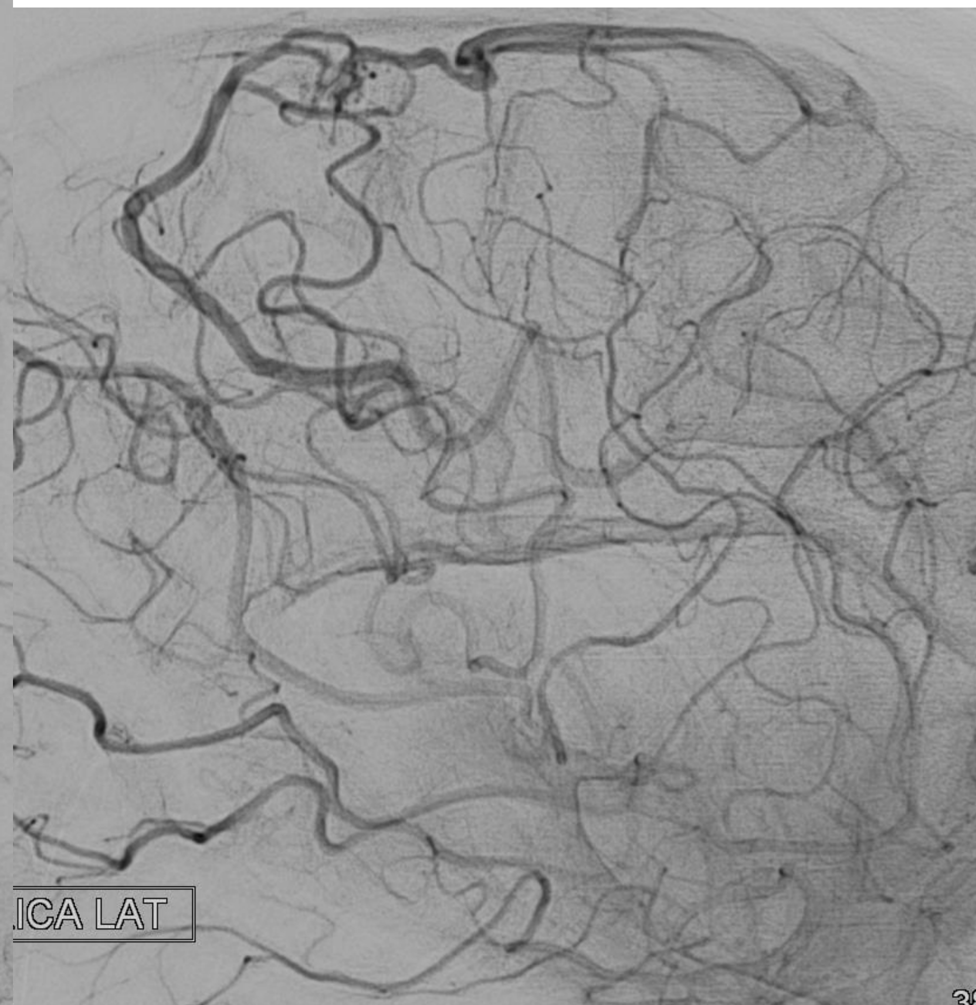




**Abnormal– Rupt. bAVM & incidental type II dAVF**

# DSA



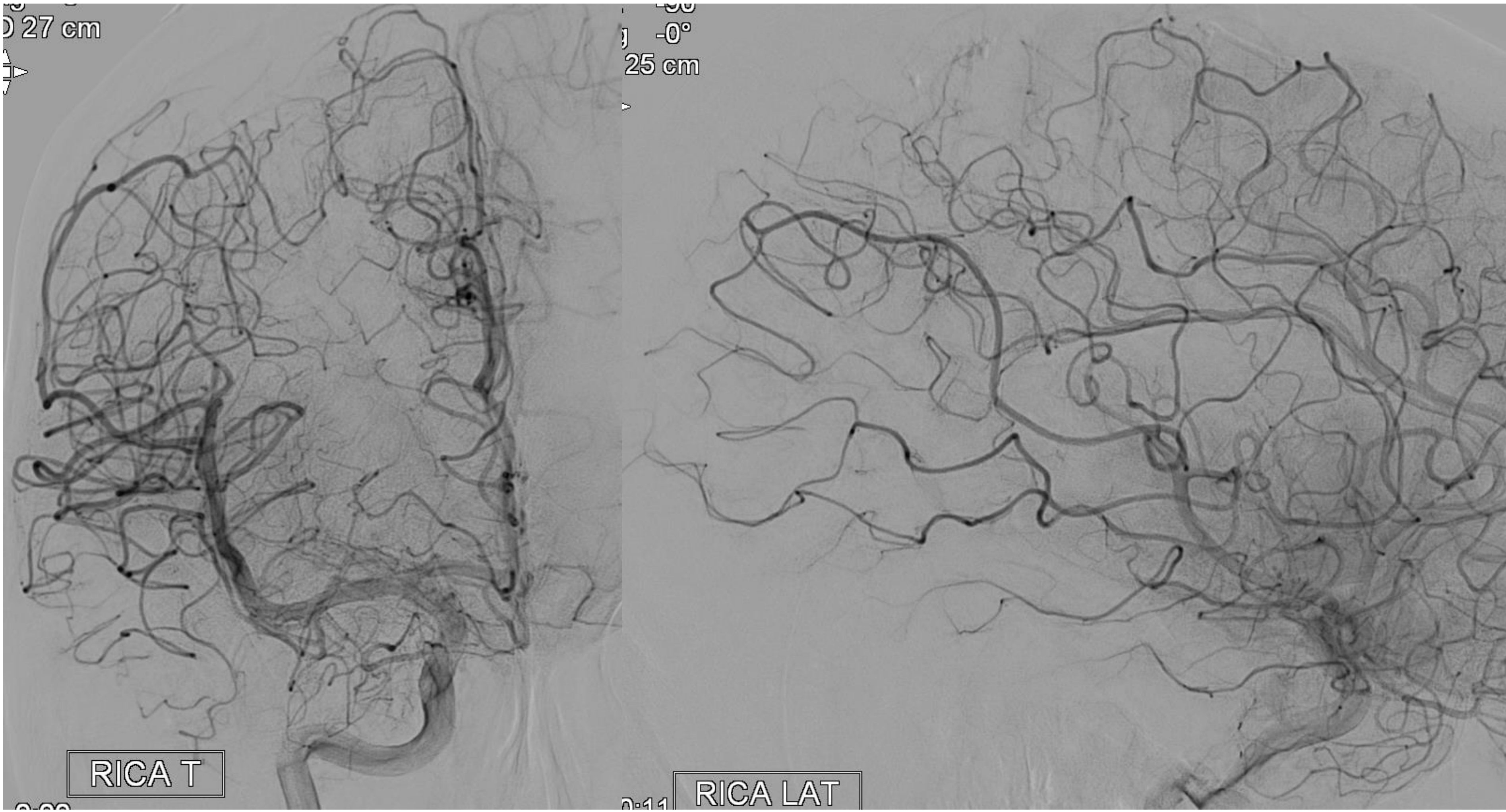
# Rx options?

1. None, conservative
2. SRS
3. Embolisation
4. Surgery
5. Embo + Sx
6. Embo + SRS

Factors to consider:

- High rebleed rate Y1 so immediate curative Rx preferred
- Spetzler Martin Grade 1
- Adjacent gliosis aids Surgery in first 2-3/12

# 6/12 Control post excision- v. good candidate for Sx



# Spetzler Martin grade

- This refers to a grading system designed to assess risk of deficit after surgical resection of bAVM (**<u>not</u> haemorrhage risk**)
  - Assigned score of 1-5 based on 3 characteristics
  - Higher grade = more risk of Sx excision

| | | |
|---|---|---|
| **AVM (nidal) size** | **Eloquence of adjacent cortex** | **Draining veins** |
| Under 3 cm = 1 | Non-eloquent = 0 | Superficial only = 0 |
| 3–6 cm = 2 | Eloquent* = 1 | Deep veins = 1 |
| Over 6 cm = 3 | | |