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# Challenging Stroke Case

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# Disclosures

Physician name	Company	Relationship
Horst Sievert	4tech Cardio, Abbott, Ablative Solutions, Ancora Heart, Bavaria Medizin Technologie GmbH, Bioventrix, Boston Scientific, Carag, Cardiac Dimensions, Celonova, Cibiem, CGuard, Comed B.V., Contego, CVRx, Edwards, Endologix, Hemoteq, InspireMD, Lifetech, Maquet Getinge Group, Medtronic, Mitralign, Nuomao Medtech, Occlutech, pfm Medical, Recor, Renal Guard, Rox Medical, Terumo, Vascular Dynamics, Vivasure Medical, Venus, Veryan	Consulting fees, Travel expenses, Study honoraria

# M.F., 79 yrs, m

Patient was found at 3pm

- facial paresis and slurred speech

Arrival in the ER at 16:19

CT

- occlusion of the left middle cerebral artery
- old left hemispheric stroke, no signs of a new stroke

iv lysis started

Arrival in the cath lab at 17:12

Sheath in the femoral artery at 17:15

Elongated aortic arch

- very difficult access to the left carotid artery

# M.F., 79 yrs, m

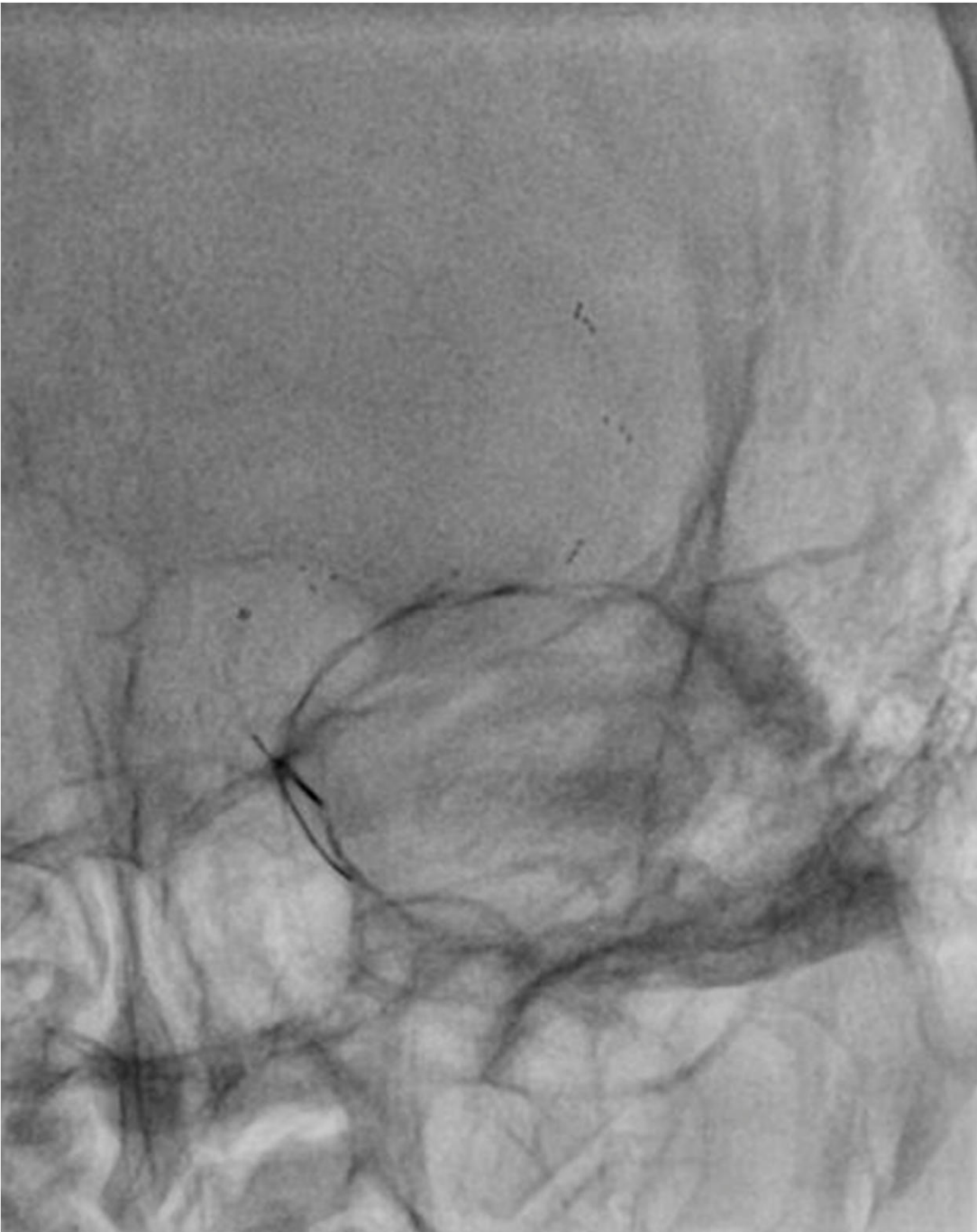
- Prior history
  - Prior left hemispheric strokes 2013 and 2014 with persisting mild aphasia
  - Hypertension
  - Diabetes
  - Dilated cardiomyopathy
  - SP ICD



- 9F Cello balloon tipped catheter in the distal ICA
- Occlusion of M2

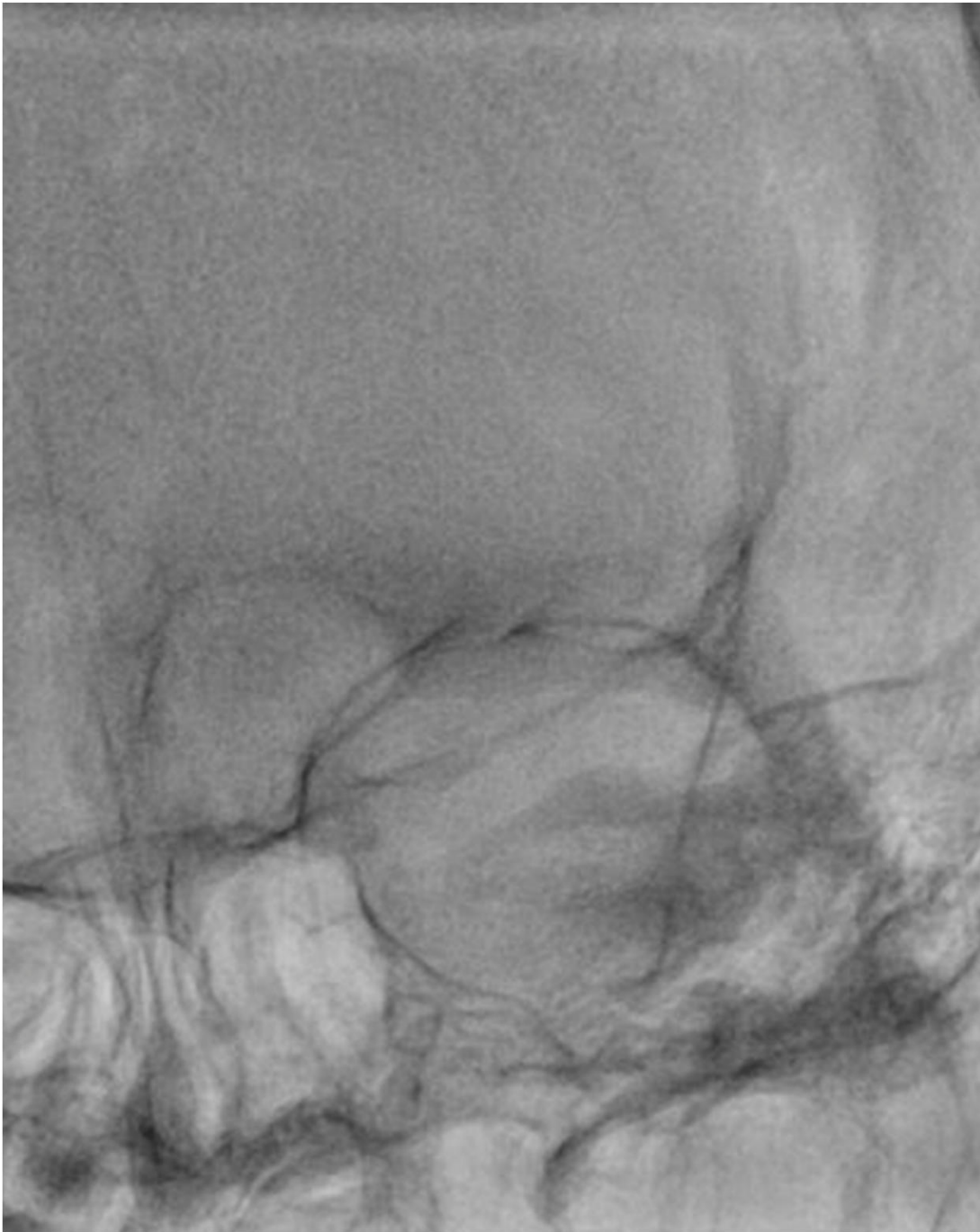
# Some technical problems

- Kink in the 9 F Cello guiding catheter due to elongated aortic arch
  - Microcatheter could not be advanced into the Cello
- Exchange for an 8 F Merci guiding catheter
  - everything dislodged during this exchange – had to start over again
- 8F Merci introduced at 18:17



- Occlusion crossed with an 0.014" wire followed by a micro-catheter
- 6/40 mm-Solitaire Stentriever introduced
- This resulted in reperfusion of distal vessel segments





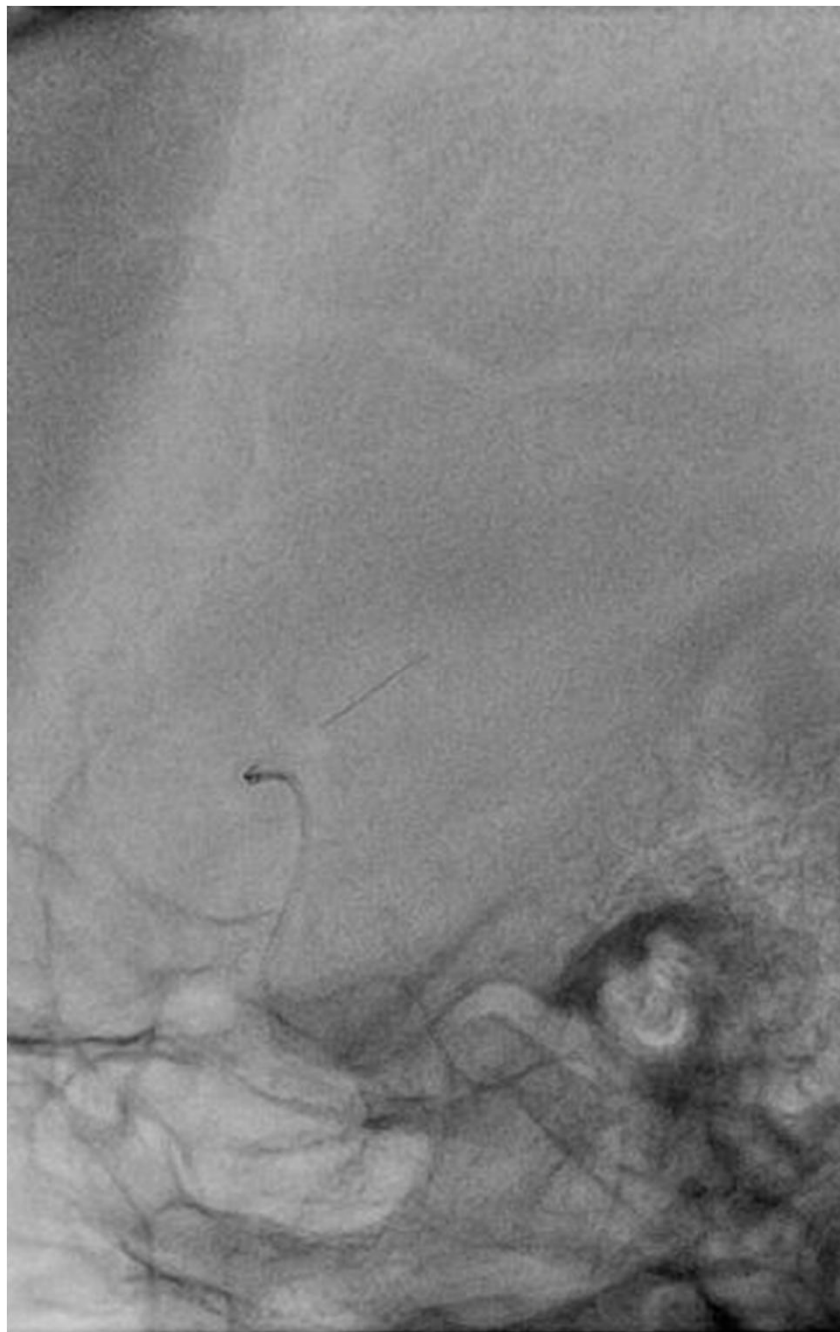
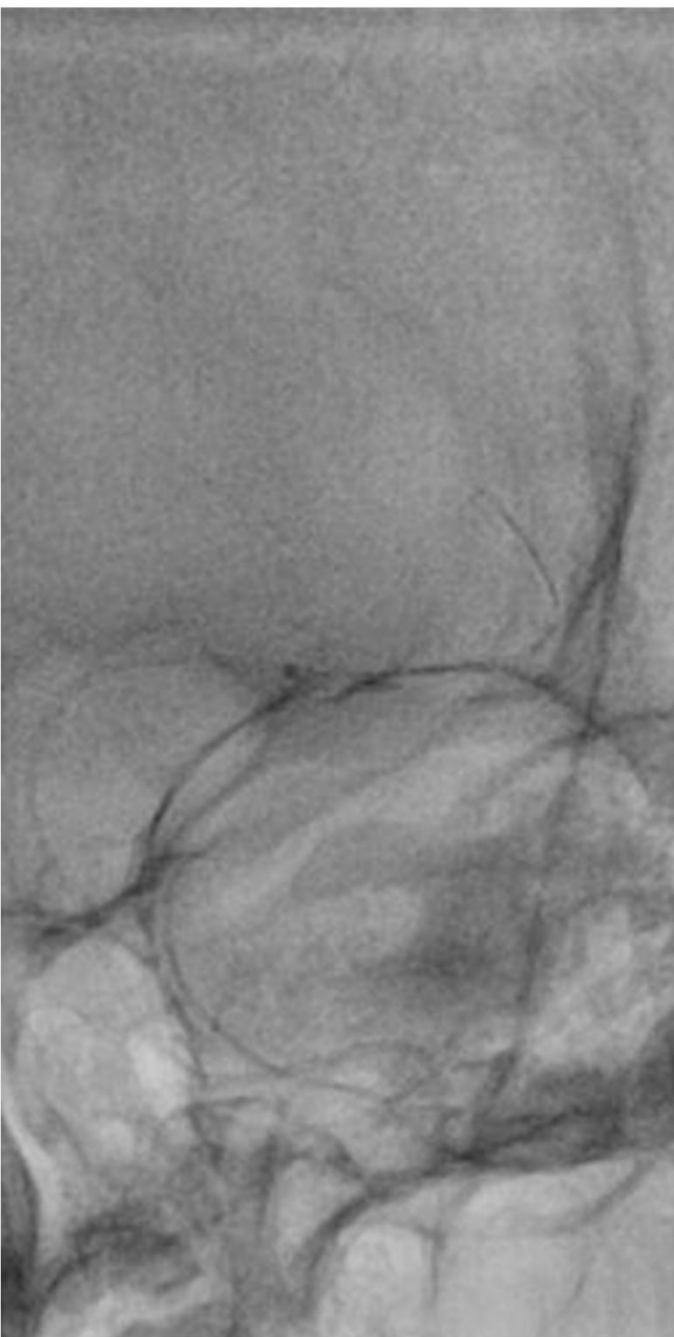
- After retrieval of the 6/40 mm-Solitaire
- MCA still occluded



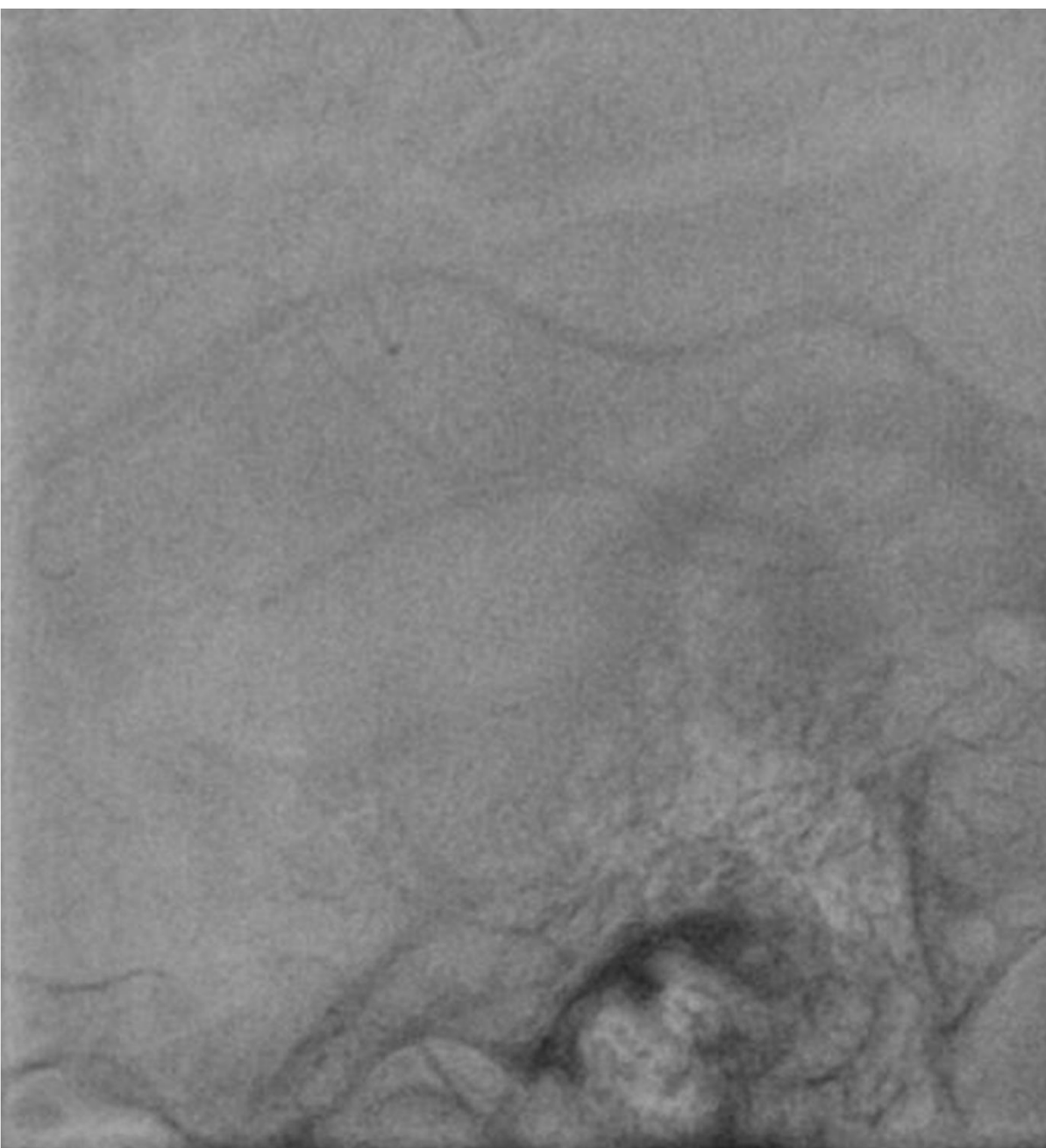
# Our decisions in daily practice are based on

- What we had learned at medical school • 10 %
- Scientific publications • 5 %
- Guidelines of medical societies • 5 %
- Our personal lifelong experience • 10 %
- What we have seen last week • 70 %

The week before I had a similar case  
where I was successful by using  
another type of stent retriever



- 4.5/30 mm-Acandis-Retriever



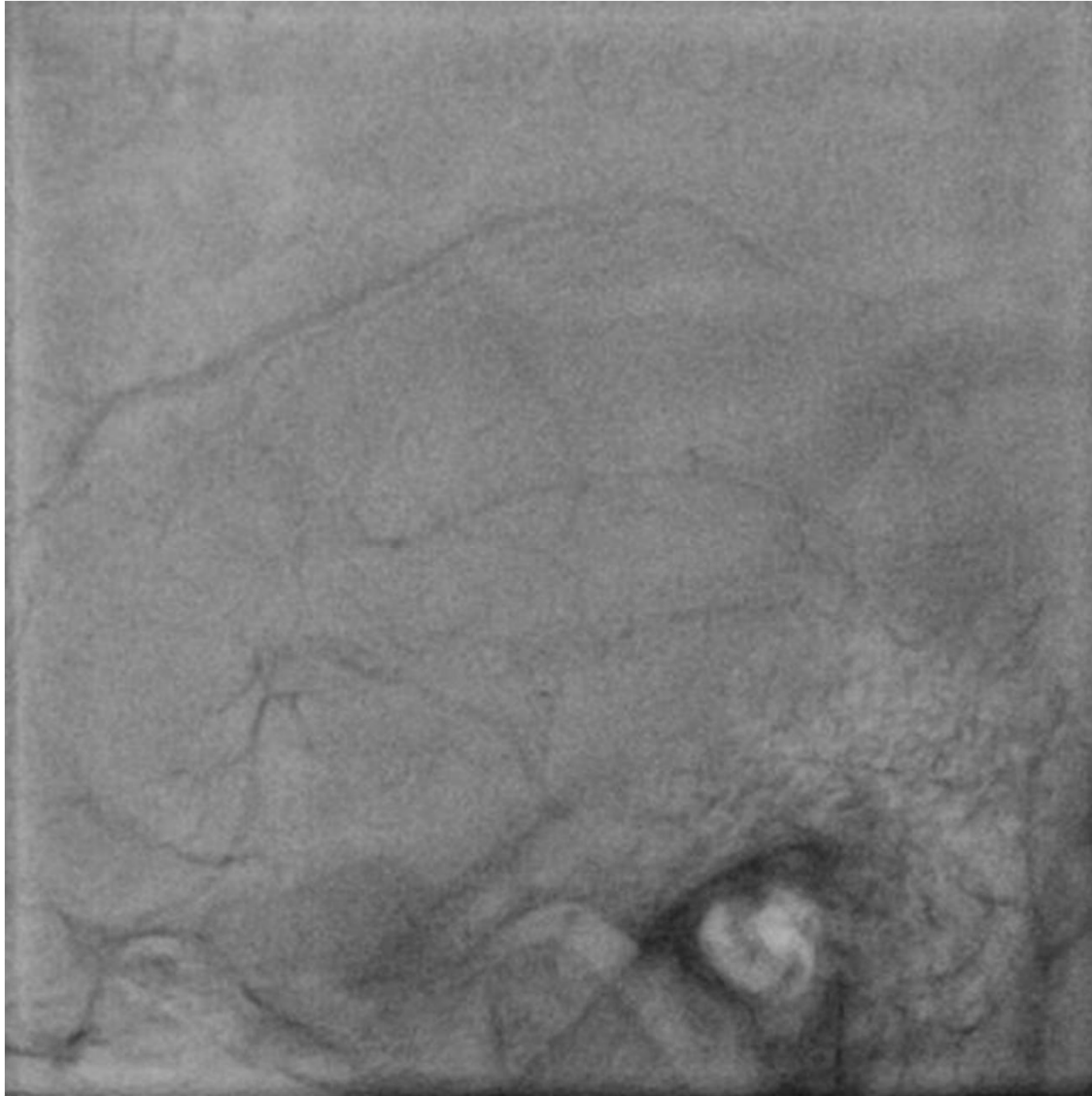
- After retrieval of the Acandis Stent-retriever
- Still occluded

"This is a M-2 occlusion"

"May be  
we need not a different but a  
smaller stent retriever?"



- 4/40 mm  
Solitaire



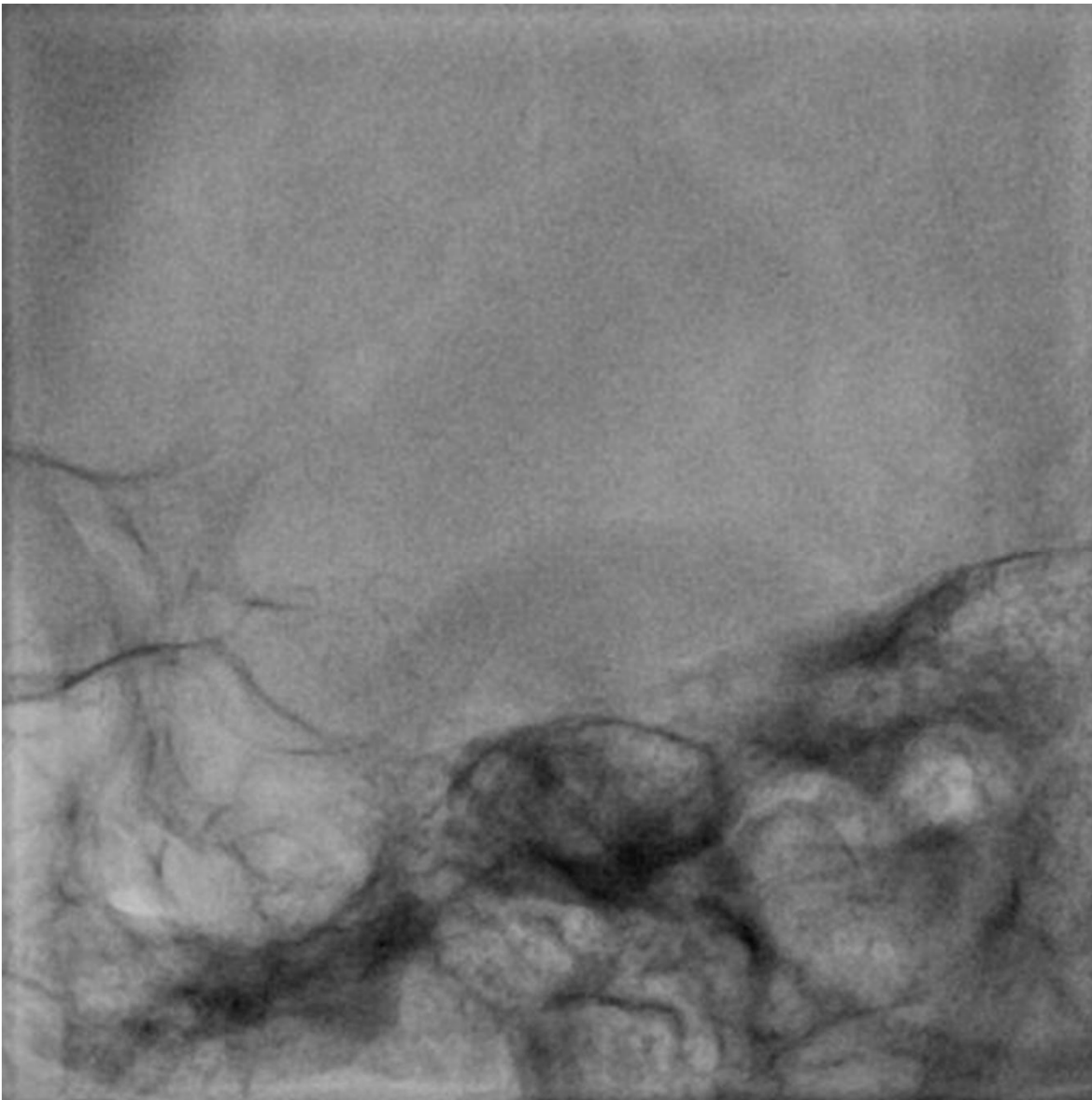
- Again occluded after retrieval of the 4/40mm Solitaire



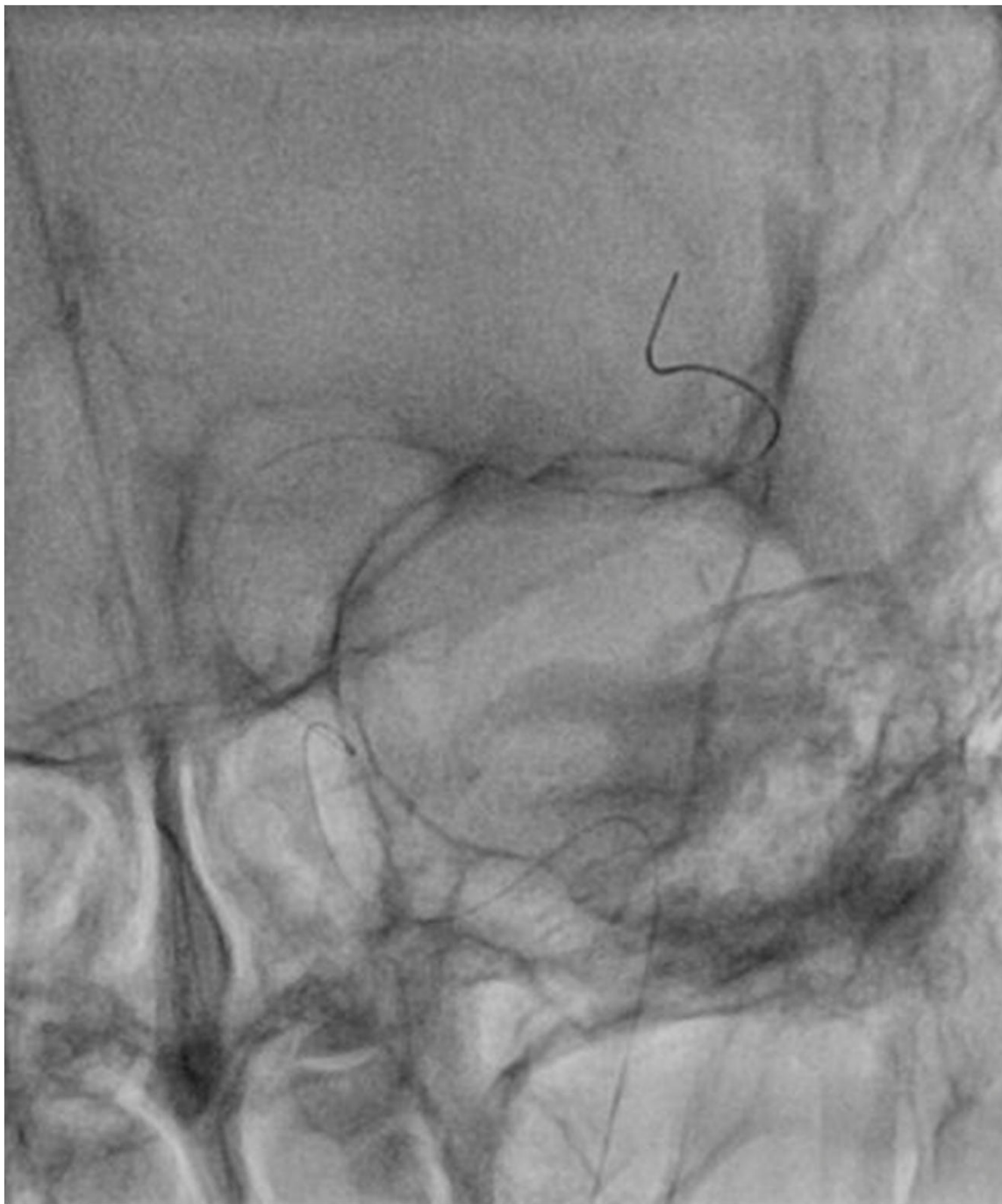


- Again 4/40 mm Solitaire





- Reocclusion after retrieval



- 1.2/20mm PTCA ballo



- After balloon dilatation

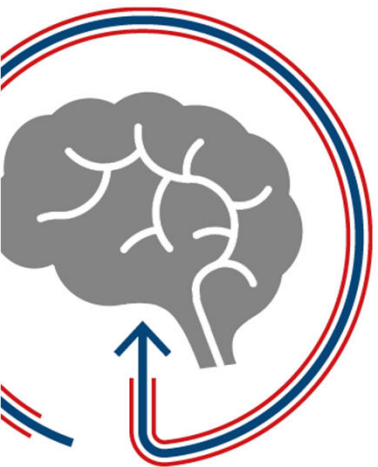
# Outcome

- No new stroke signs on CT
- Marked clinical improvement
- Old reports from 2013 and 2014 mentioned a stenosis of the left MCA

# Lessons (re-) learned

- Recurrent strokes in the same territory are suspicious for a local stroke cause
- Embolic stroke with large vessel occlusion in the absence of atrial fibrillation is suspicious for a local stroke cause
- Unsuccessful clot removal is suspicious for a local stenosis
  - Balloon angioplasty helps

# Thank you!



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ACUTE STROKE INTERVENTIONS & CAROTID STENTING

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