Acute Stroke Treatment: How I Do It

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Nothing to disclose in regard to this presentation
Check the Indication ...

Clinical state of the patient

• conscious ?
• cooperative ?
• co-morbidity ?

tx in local or general anesthesia?
Local or General Anesthesia?

- Is the patient cooperative?
- Is the patient unconscious?

Advantage of local anesthesia:
- no loss of time

Disadvantage of general anesthesia:
- needs more time
- may lower the blood pressure
Check the Indication ...

Where is the occlusion located?

• ICA ?
• MCA  M1?  M2?
• ACA ?
• Basilar artery ?
• Several arteries ?
When hemorrhagic infarction is ruled out, rtPA is immediately started.
Access to the Lesion ...

- femoral access in most cases
- brachial or radial access is possible
- aortic arch angiogram
- sheath* is placed in ICA
  - telescopning technique

* Cello™ catheter
Why an Arch Angiogram?

Arch Anomalies
Ostial Stenoses

isolated right subclavian artery
isolated left vertebral artery
Why an Arch Angiogram?

Additional Arch Disease

Separate origin of left vertebral artery
My preferred catheter ...

VITEK catheter
... for type I + II (III) aortic arches
Access to the Lesion and ...

- Sheath is placed in CCA in case of carotid bifurcational occlusion.
- Cerebral angiogram.
- Microcatheter and 0.014" wire are navigated in affected artery.
- Wire and microcatheter cross the thrombus.

• the wire is pulled out with the tip of the microcatheter distal to the thrombus
• the stent retriever is placed in the microcatheter at the level of the thrombus
• the microcatheter is pulled back and the stent retriever is deployed
Thrombectomy ...

- the stent retriever stays in position for ~ 3 min to dig with its struts into the thrombus
- the balloon of the Cello catheter is inflated to block an orthograde flow
- underpressure is created with a 30 cc syringe
- the stent retriever is slowly pulled back and extracted from the catheter system
Thrombectomy ...

- Cello™ catheter is deflated
- control angiogram
- artery patent - end of the procedure
- residual thrombus - procedure is repeated
- additional thrombus in distal branches
  - thrombus aspiration
  - i.a. thrombolysis
How we do it ...

M.Sch. f-89

• hemiplegic for 5 hrs
• flank pain left side
• atrial fibrillation
• CT with only old lacunar infarction
Native CT

M.Sch. f-89  old insular infarction
no brain atrophy
Perfusion CT

M. Sch. f-89 underperfused mca and aca territory
Abdominal CT

M. Sch. f-89  No opacification of left kidney: renal artery embolization
Angiography

M.Sch. f-89  Elongated ICA - Carotid T-Occlusion
Thrombectomy

M.Sch. f-89

Solitaire® 6 mm
Control Angiogram

M. Sch. f-89  Carotid T cleared
Control CT

M. Sch. f-89  CT after 24h unchanged
no infarction
Follow-up

M.Sch. 89-f

- no neurological deficit
- kidney infarction - no specific treatment
- patient at home caring for herself
- Xeralto® for her AF
What else is important?

- door needle time < 30 min
- thrombectomy 30 – 50 min
Everything clear?

Thank you for your interest

So, Where are we exactly?
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