

Workshop 3:

Anticoagulants and antiplatelet drugs

**P. Widimsky: Antithrombotic therapy in
the acute phase of ischemic stroke**

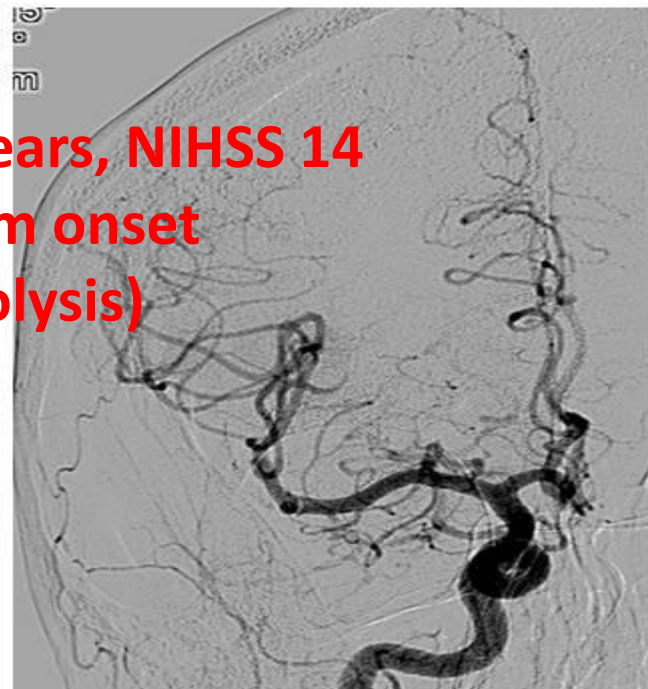
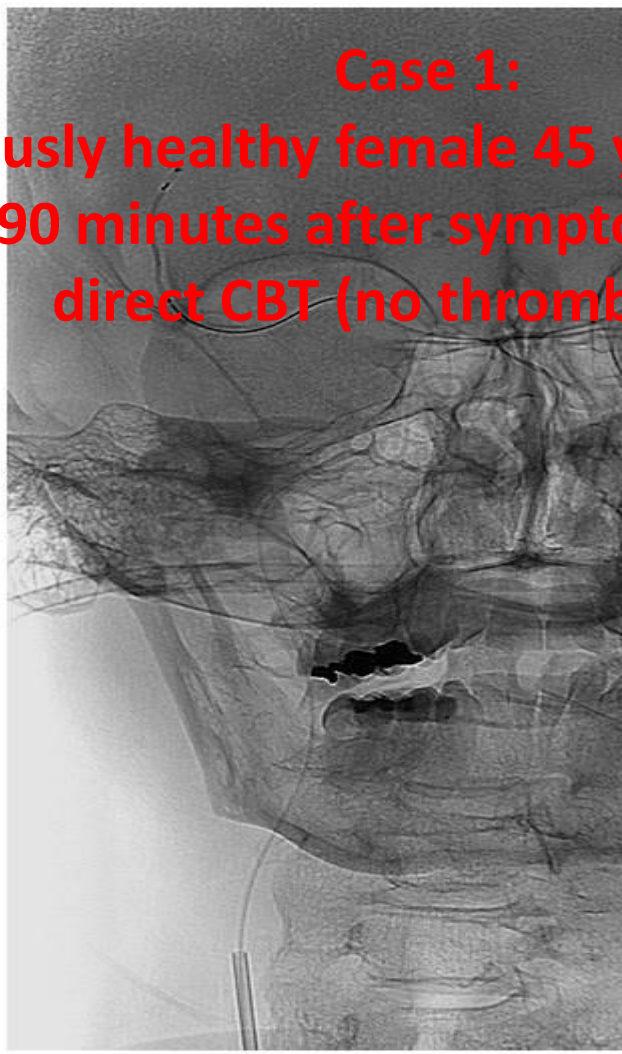
P. Widimsky – Potential conflicts of interest

Occasional speakers honoraria / advisory boards:

- AstraZeneca
- Bayer
- Boehringer Ingelheim
- Daiichi Sankyo
- Novartis
- Pfizer
- Servier

Case 1:

Previously healthy female 45 years, NIHSS 14
90 minutes after symptom onset
direct CBT (no thrombolysis)



Case 1: Antithrombotic medication

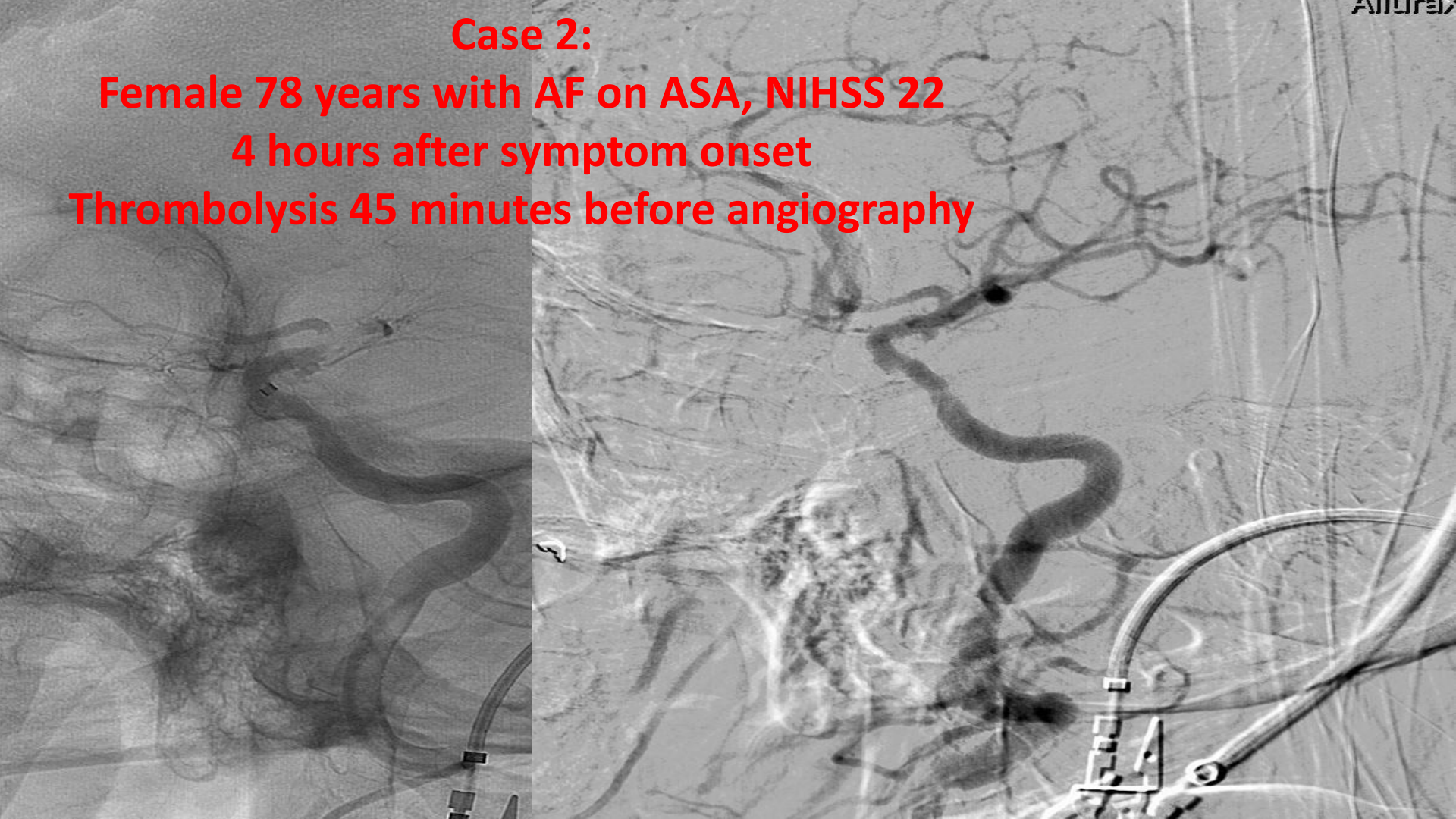
- Prehospital / pre-procedural: 0
- Periprocedural: Heparin 1800 U (= 30 U / kg)
- First 12 hours till control CT: 0
- Very small ischemia at control CT AND clinically functional recovery AND no cause of stroke (ESUS): ASA 100 mg / day started on day 1.
- **? ASA or NOAC for secondary prevention in young patients with ESUS ?**

Case 2:

Female 78 years with AF on ASA, NIHSS 22

4 hours after symptom onset

Thrombolysis 45 minutes before angiography

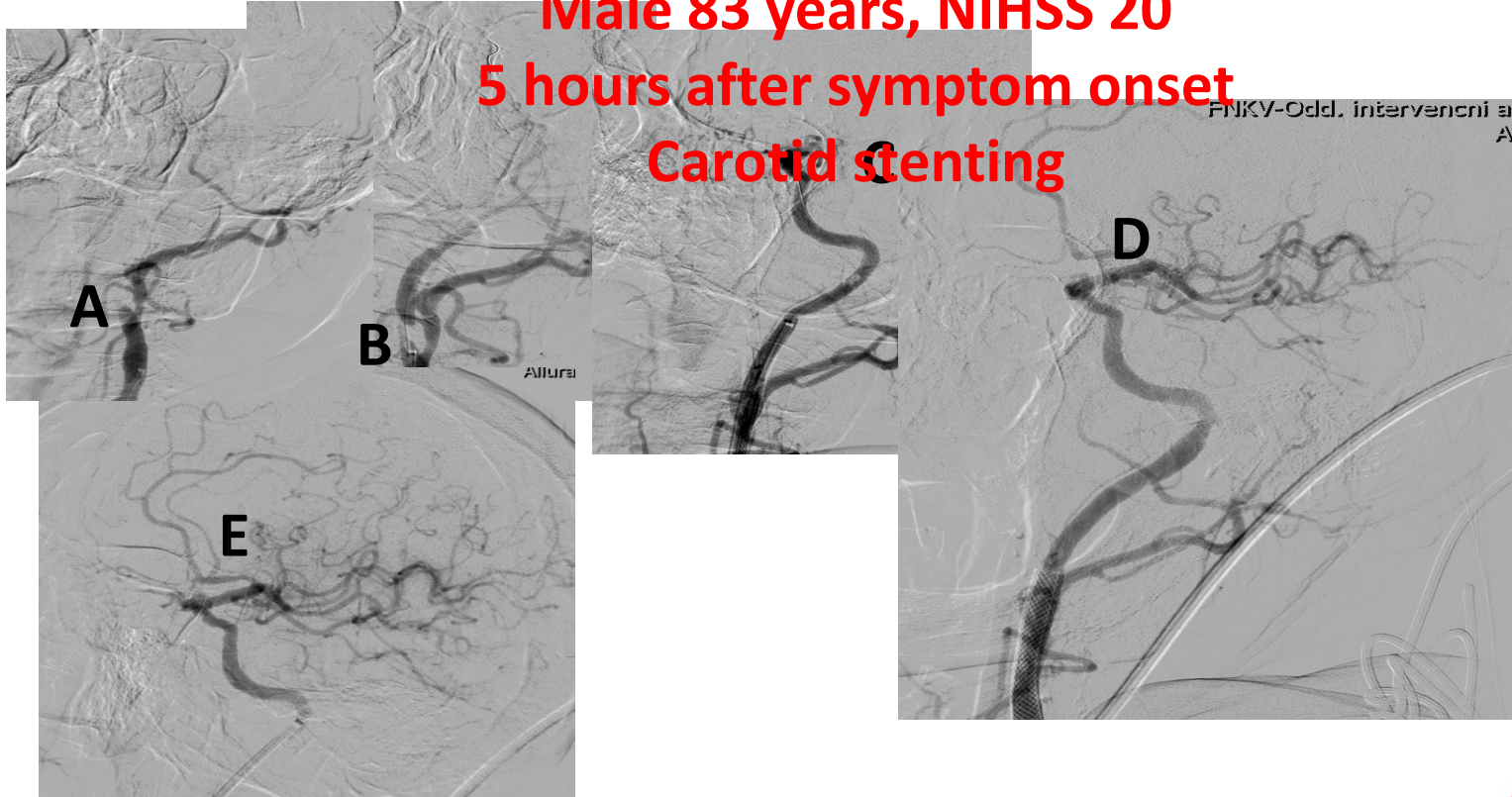


Case 2: Antithrombotic medication

- Pre-procedural: rt-PA 70 mg iv. (0,9 mg/kg)
- Periprocedural: 0 (rt-PA infusion completed during the initial minutes of intervention)
- First 18 hours till control CT: 0
- Large ischemia at control CT AND clinically minimal recovery AND atrial fibrillation: NO antithrombotics given for the next 3 days
- Rivaroxaban 15 mg / day started on day 5 along with slow clinical improvement and no ICH on CT
- **? When to (re)start OAC in large stroke AND atrial fibrillation ?**

Case 3:

Male 83 years, NIHSS 20
5 hours after symptom onset
Carotid stenting



Case 3: Antithrombotic medication

- **Pre-procedural: 0**
- **Periprocedural: Kardegic 0.5 g iv., Heparin 2000 U (25 U/kg) iv.**
- **First 12 hours till control CT: Clopidogrel 75 mg p.o.**
- **Small ischemia at control CT AND clinically very good recovery AND carotid stent: ASA 100 mg + clopidogrel 75 mg started on day 1.**
- **? What is the optimal antithrombotic strategy in carotid stenting during the acute stroke ?**
- **? Stent implantation in the acute phase OR acute balloon angioplasty with deferred stenting few days later ?**

Antithrombotics in acute stroke treated with endovascular thrombectomy

- **No data from randomized trials**
- **Empiric recommendations only**

Pre-hospital & pre-intervention phase

- No antithrombotics prior to the first imaging (CT / MR / DSA)
- Intracranial bleeding excluded with imaging: immediate thrombolysis if indication criteria fulfilled

Periprocedural phase

- **Iv. rtPA infusion (initiated prior to intervention) may be completed during the intervention**
- **No other antithrombotics when rtPA is used**
- **In direct thrombectomy (without thrombolysis) low dose heparin (20-30 U/kg iv. bolus)**
- **If carotid stenting is performed, Kardegic (0.5 g iv.) + low dose heparin**

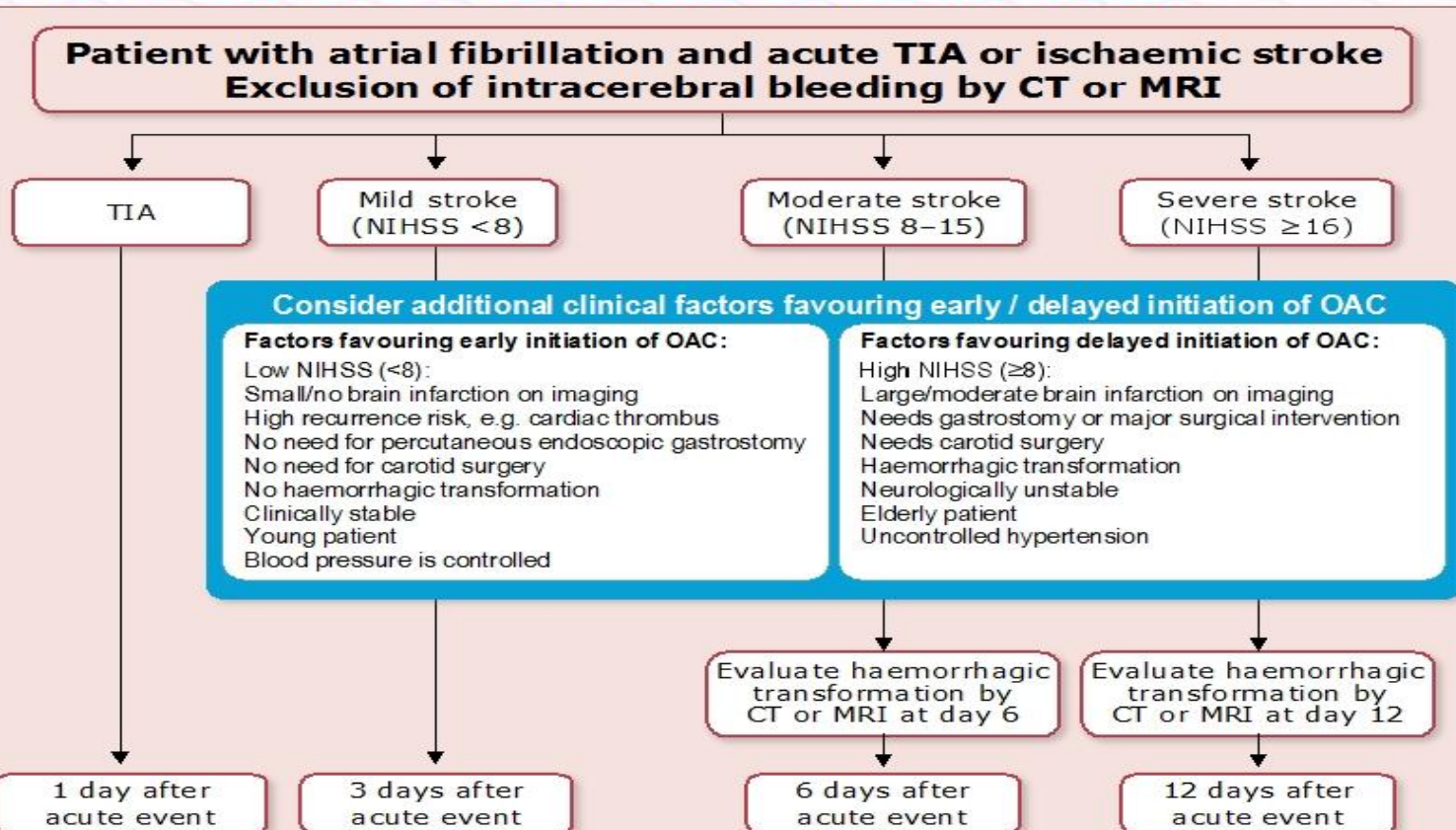
First 48-hours after intervention

- Wait till control CT (MR) excludes ICH and defines ischemic core size
- Search for stroke cause (cardioembolic vs. atherosclerotic vs. other)
- ASA if presumed stroke cause was atherosclerosis
- DAPT if stroke was treated with carotid stenting
- OAC if presumed stroke cause was cardioembolic
- OAC or ASA in ESUS

Timing of antithrombotic treatment (re)start

- TIA or minor ischemic stroke: immediately (day 1)
- Moderate ischemic stroke: between days 3-10 based on stroke severity and imaging results
- Severe ischemic stroke: after 10-14 days

Initiation or continuation of anticoagulation in atrial fibrillation patients after a stroke or transient ischaemic attack



This approach is based on consensus within the Task Force, not on evidence.

NIHSS = National Institutes of Health Stroke Scale