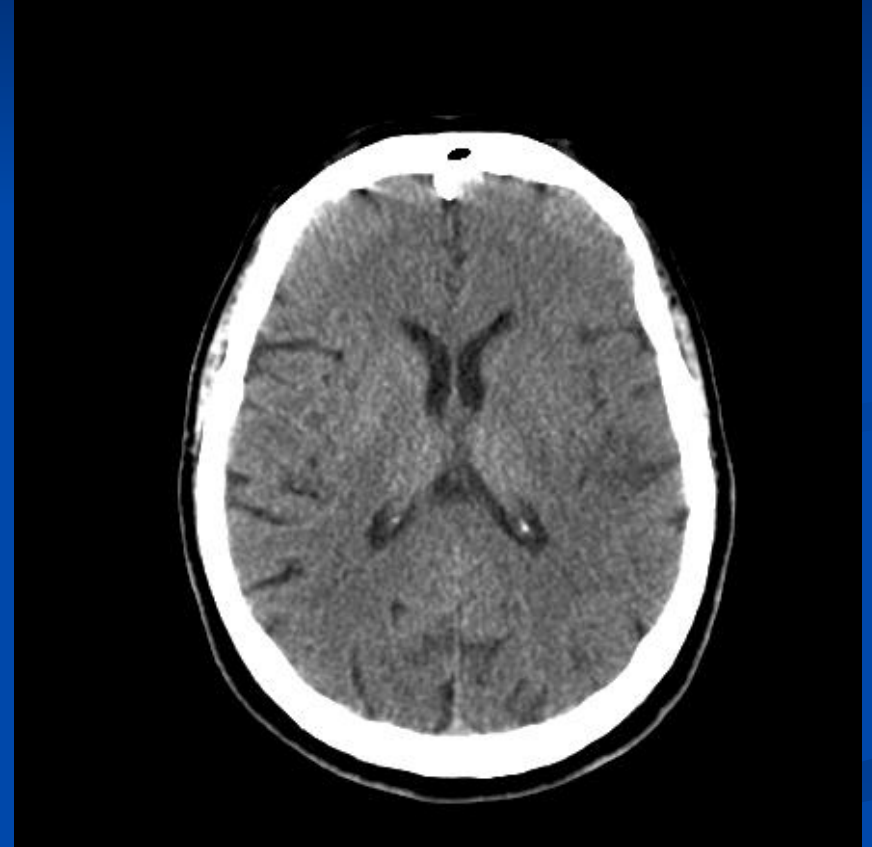# Hjerneblødning på Stroke Centeret!

Billeddiagnostik

17. juni, 2016

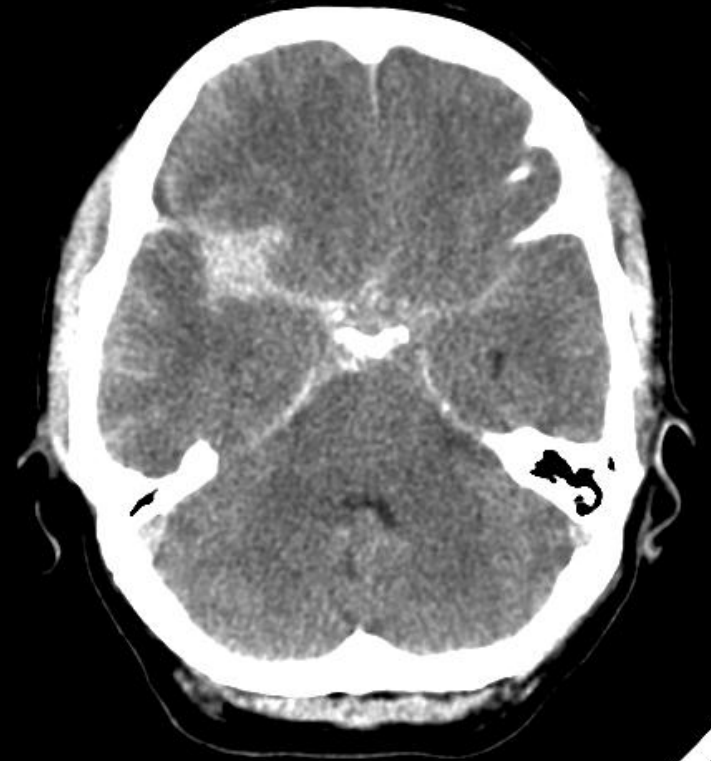# Apopleksi, stroke, slagtilfælde

….taler for blødning:

- Højt BT
- Ændret bevidstheds niveau
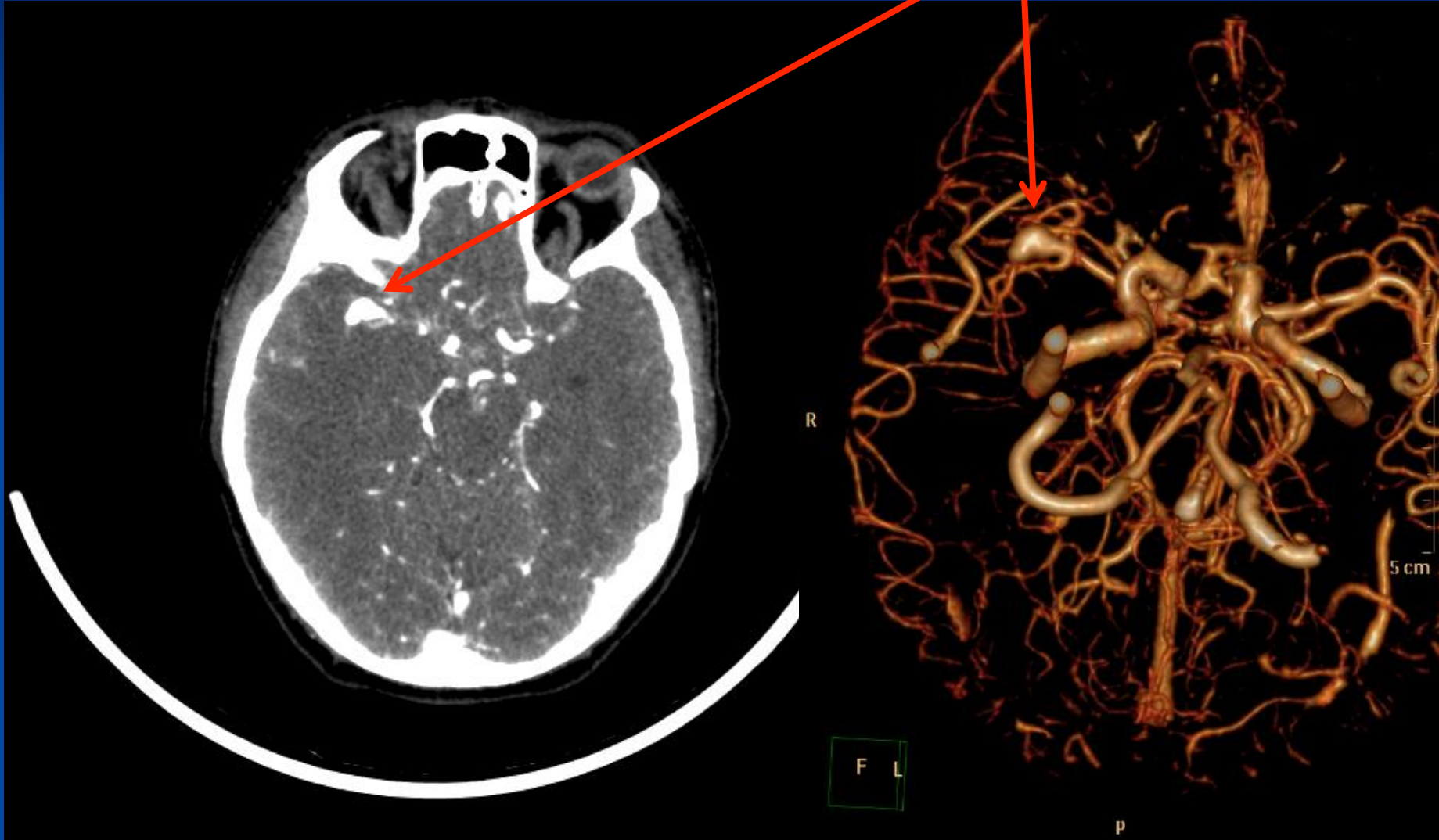- Opkastning
- Kramper
- Progression

Patienten har en blødning…

- Diagnose

- Behandling

- Prognose

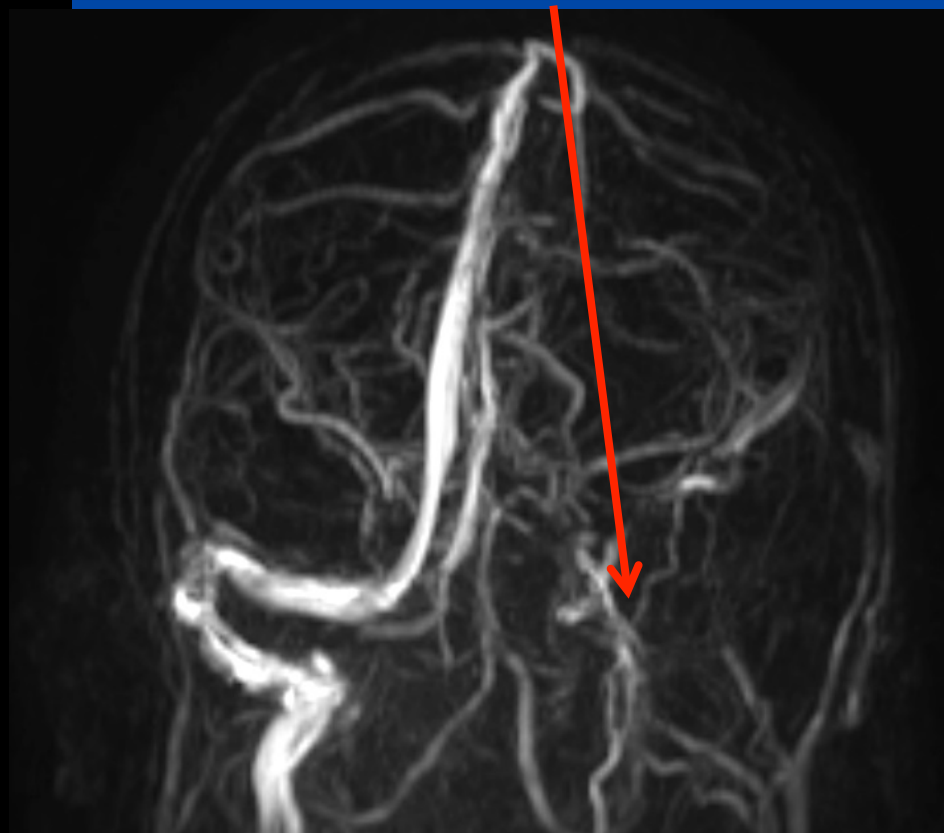# Ve. sidig hemiparese. Modtages som trombolyse pt.

CT angio med aneurisme

50 årig kvinde, tidl. c. mamma
Progredierende hovedpine og afasi

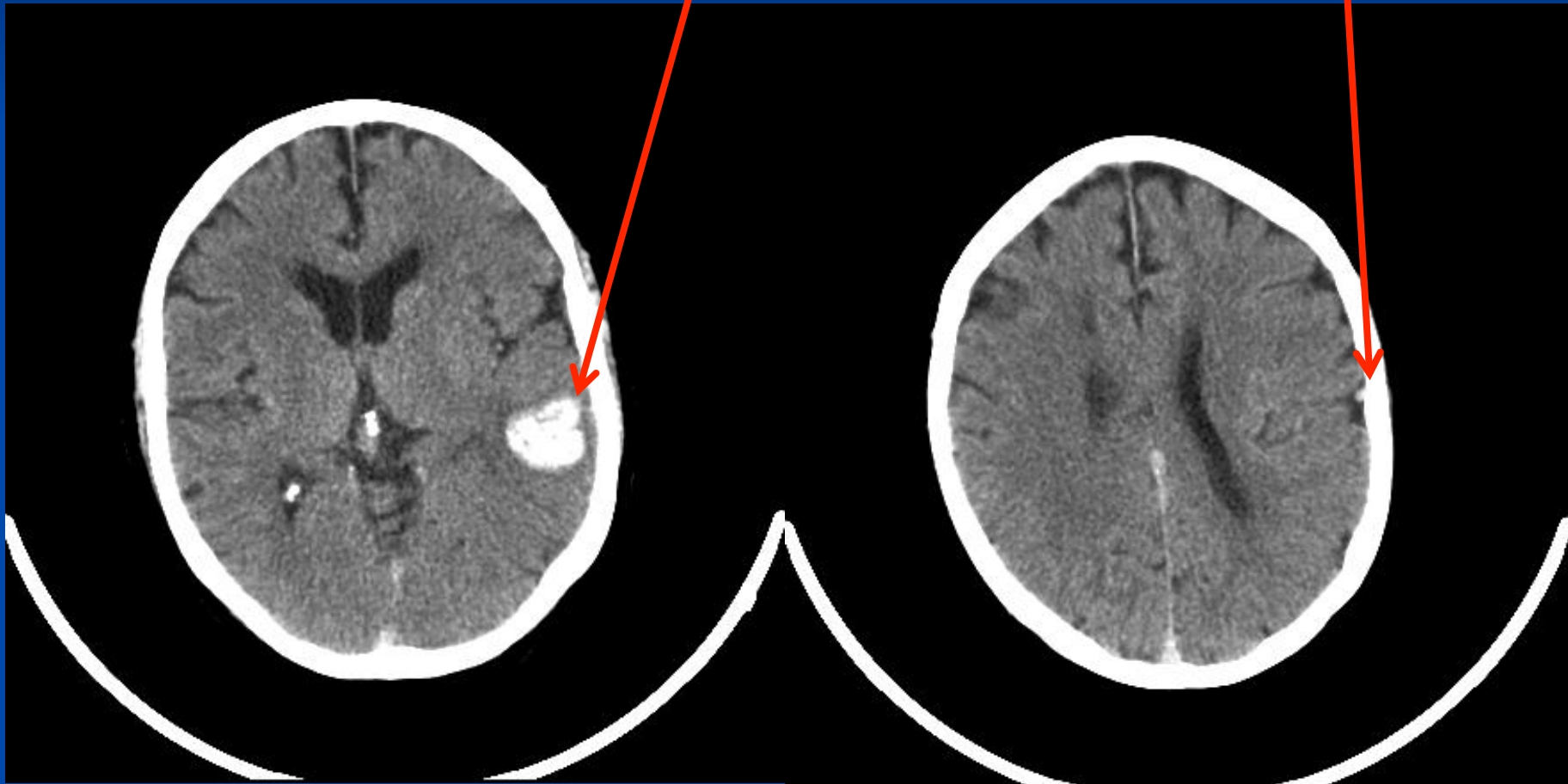
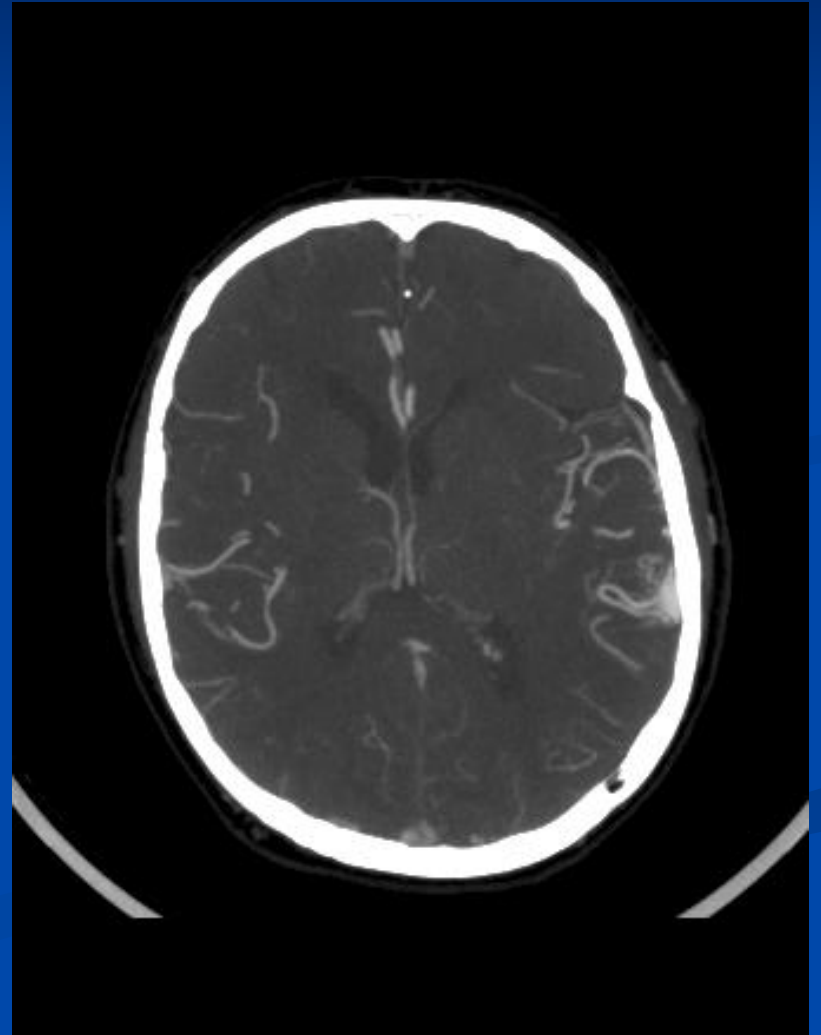MR venøs angio:
Sinustrombose

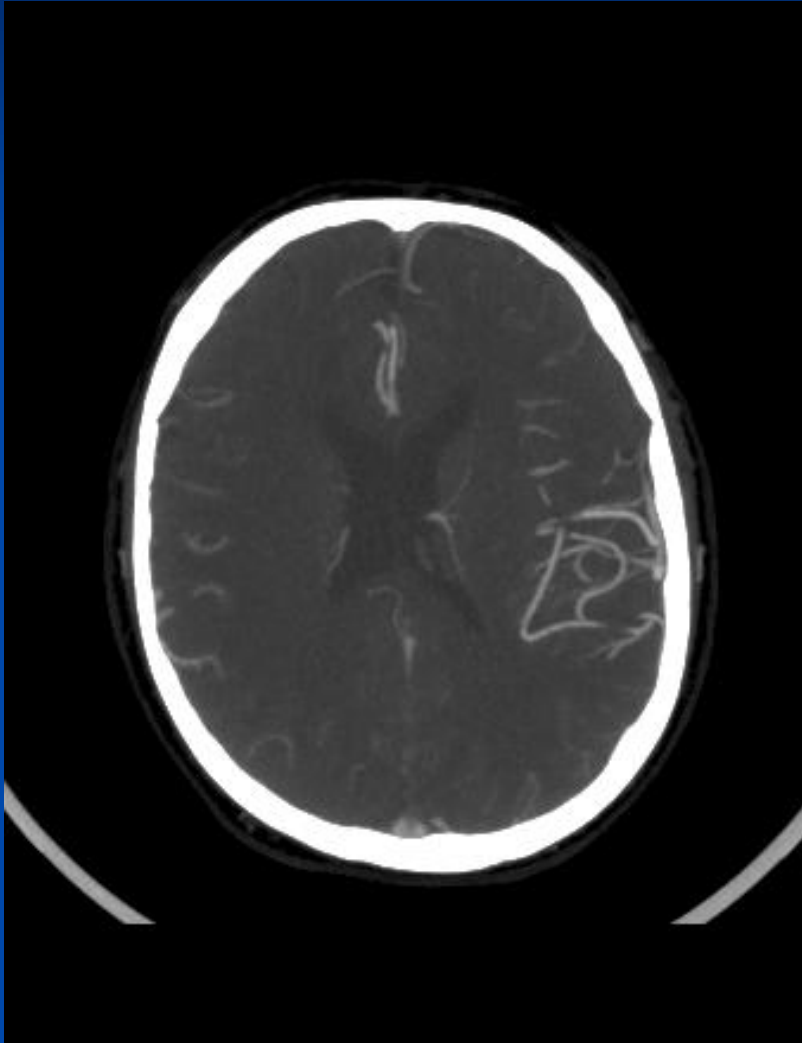61 årig mand. Pludselig impressiv afasi. Atypisk beliggenhed

Dilateret kar

CT angio med AVM

Årsager til spontan ICH…

- **Vaskulære årsager**
  - Aneurismer
  - AVM
  - Sinustrombose
  - Cavernomer
  - DAVF

- **" Helt spontan"**
  - Hypertensiv ICH (~70%)
  - CAA (~15%)

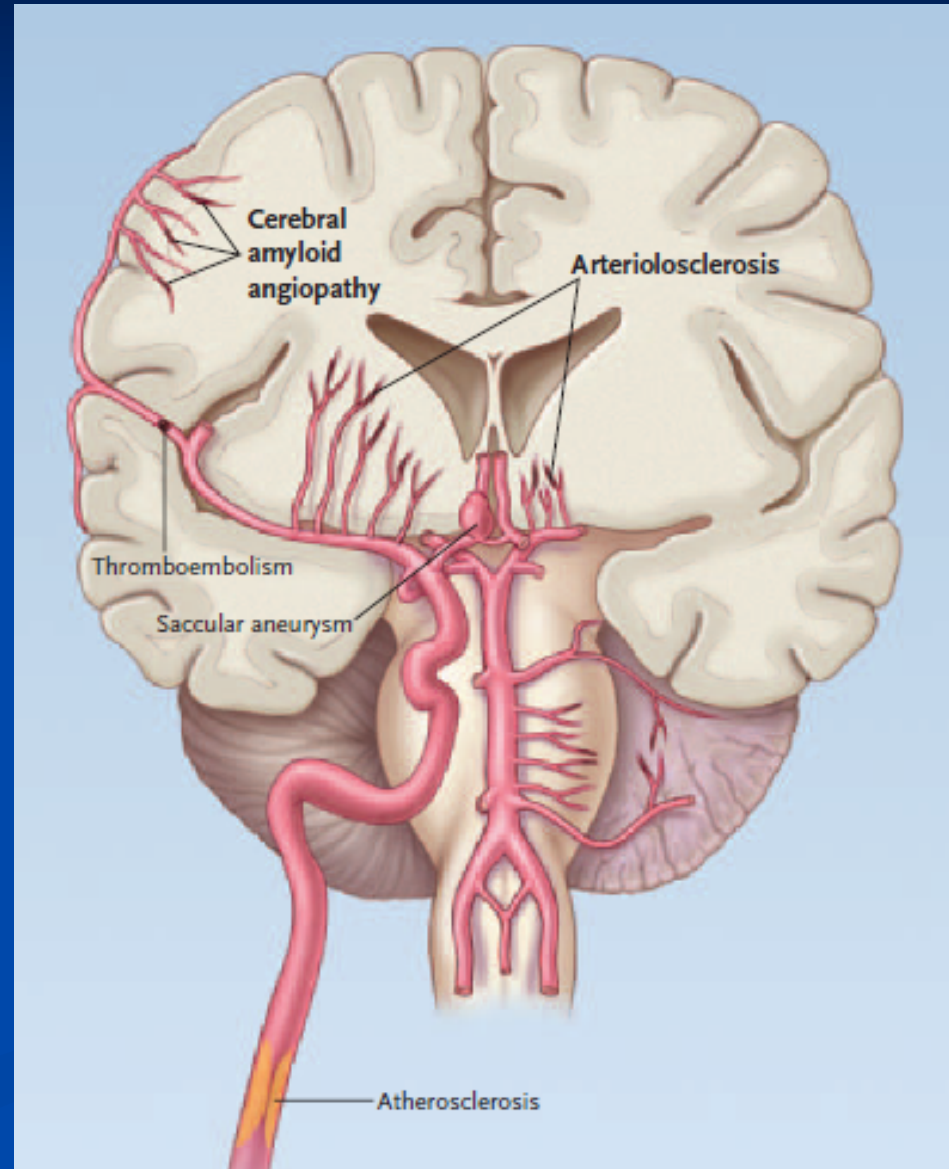# Beliggenhed, beliggenhed…

■Hypertension:
-Basal ganglia
-Thalamus
-Pons
-Cerebellum

■CAA:
-Lobært (cortical/
subcortical)
-oftest occipetal

Cerebral Microbleeds (CMB)

- Afspejler "macrobleeds"
- Sorte på T2* vægtet MR scanning
- Runde/ovoide
- "Blooming" effect
- Ikke hyperintens på T2/T1. (Cavernom/melanom)
- Udeluk "mimics"
- Ikke-traume relateret
- En risiko for blødning…

Cerebral microbleeds are a risk factor for warfarin-related intracerebral hemorrhage

- 24 patienter med ICH på Warfarin
- 48 matchede kontroller på Warfarin

Table 2	Radiologic findings		
Variables	ICH cases (n = 24)	Controls (n = 48)	*p* Value
Presence of microbleeds	19 (79.2%)	11 (22.9%)	<0.001
No. of microbleeds	9.0 ± 26.8	0.5 ± 1.03	<0.001*

- Hypertensiv ICH
- Basal ganglier, thalamus, pons
- Alder: 50-60 år
- Re-blødning: 1-2%/ år

- Cerebral amyloid angiopati
- Lobær, subcortical
- Alder: >70 år
- Re-blødnings risiko: 4-6%/år

Behandling

Akut BT sænkning ved ICH

Revertering af marevan ved ICH

Revertering af pladehæmmere?
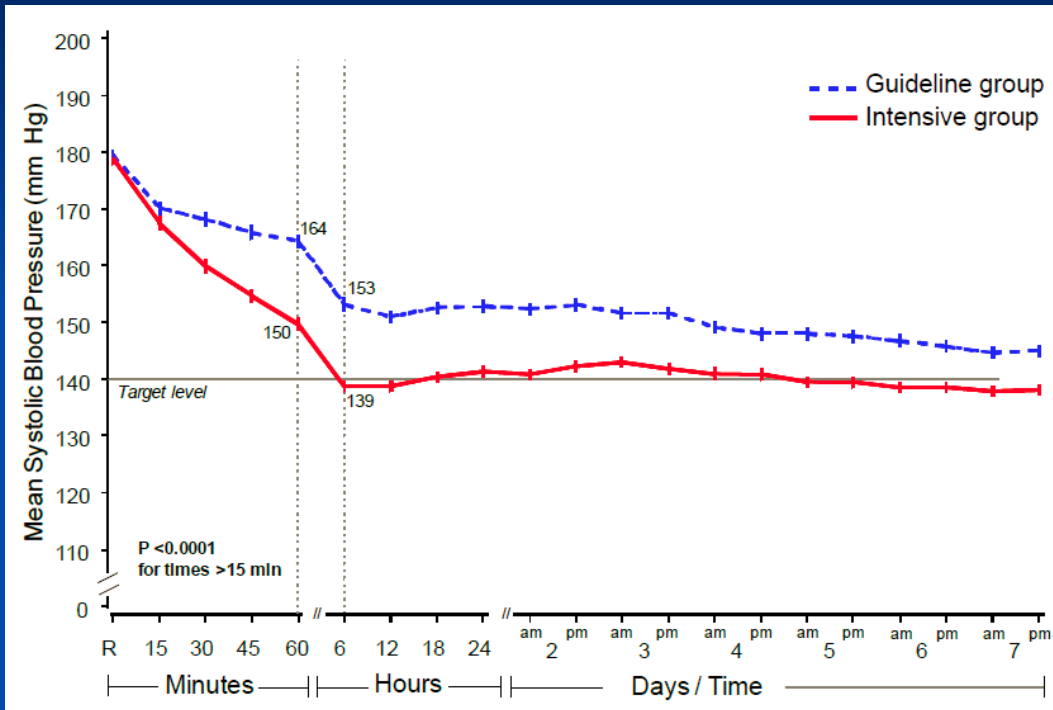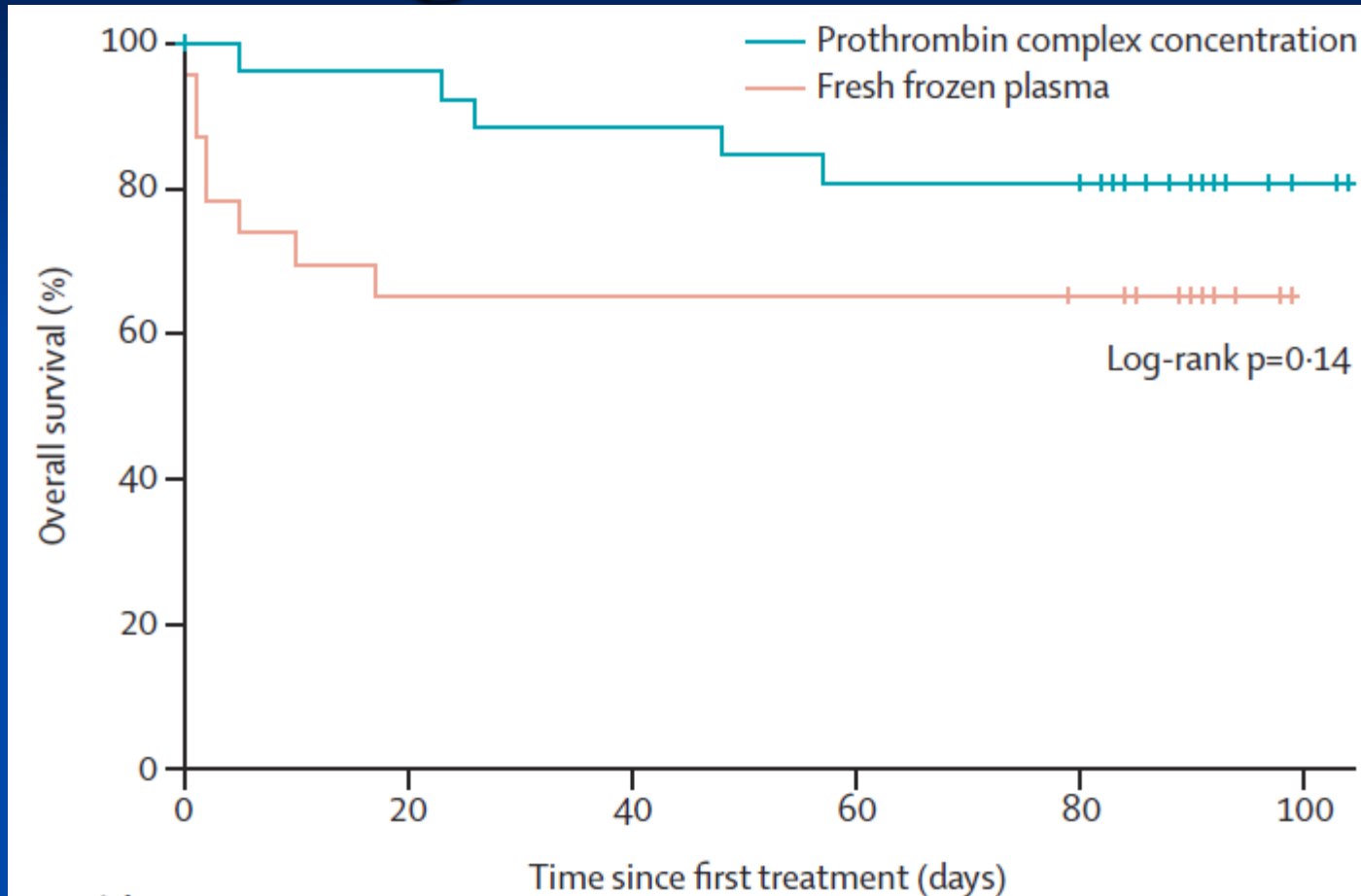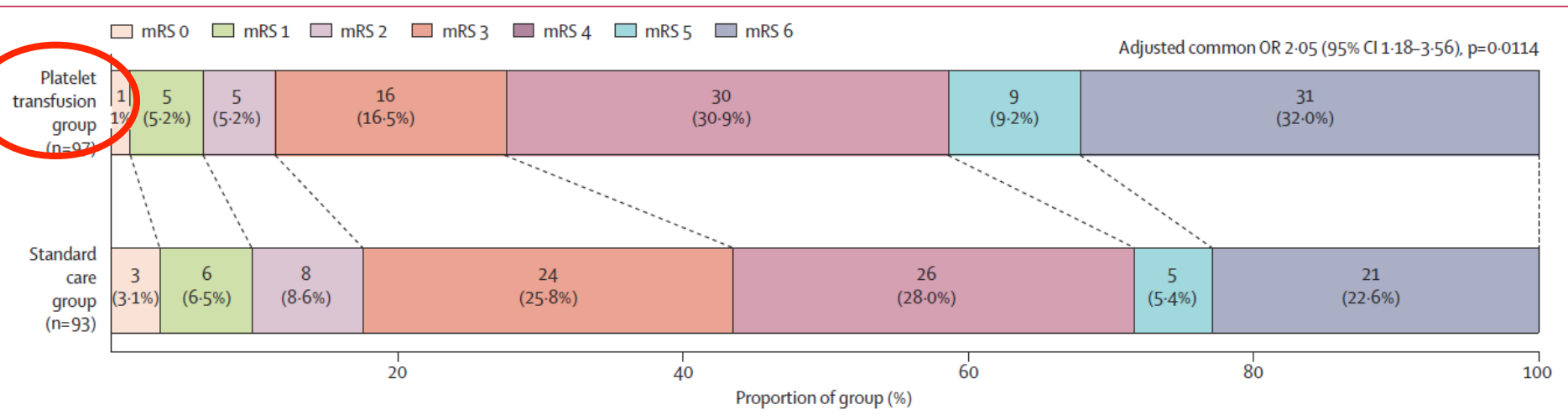

Platelet transfusion versus standard care after acute stroke due to spontaneous cerebral haemorrhage associated with antiplatelet therapy (PATCH): a randomised, open-label, phase 3 trial

M Irem Baharoglu*, Charlotte Cordonnier*, Rustam Al-Shahi Salman*, Koen de Gans, Maria M Koopman, Anneke Brand, Charles B Majoie, Ludo F Beenen, Henk A Marquering, Marinus Vermeulen, Paul J Nederkoorn, Rob J de Haan, Yvo B Roos, for the PATCH Investigators†

Interpretation Platelet transfusion seems inferior to standard care for people taking antiplatelet therapy before intracerebral haemorrhage. Platelet transfusion cannot be recommended for this indication in clinical practice.

Prognose..

- Alder

- Størrelse

- Lav GCS

- IVH

- Lokalisation (dyb værre end lobær)

Størrelse

- Eksempel:
- ABC/2 regel
- 8cm x 5 cm x 7 cm (14 snit) /2 = 140 ml
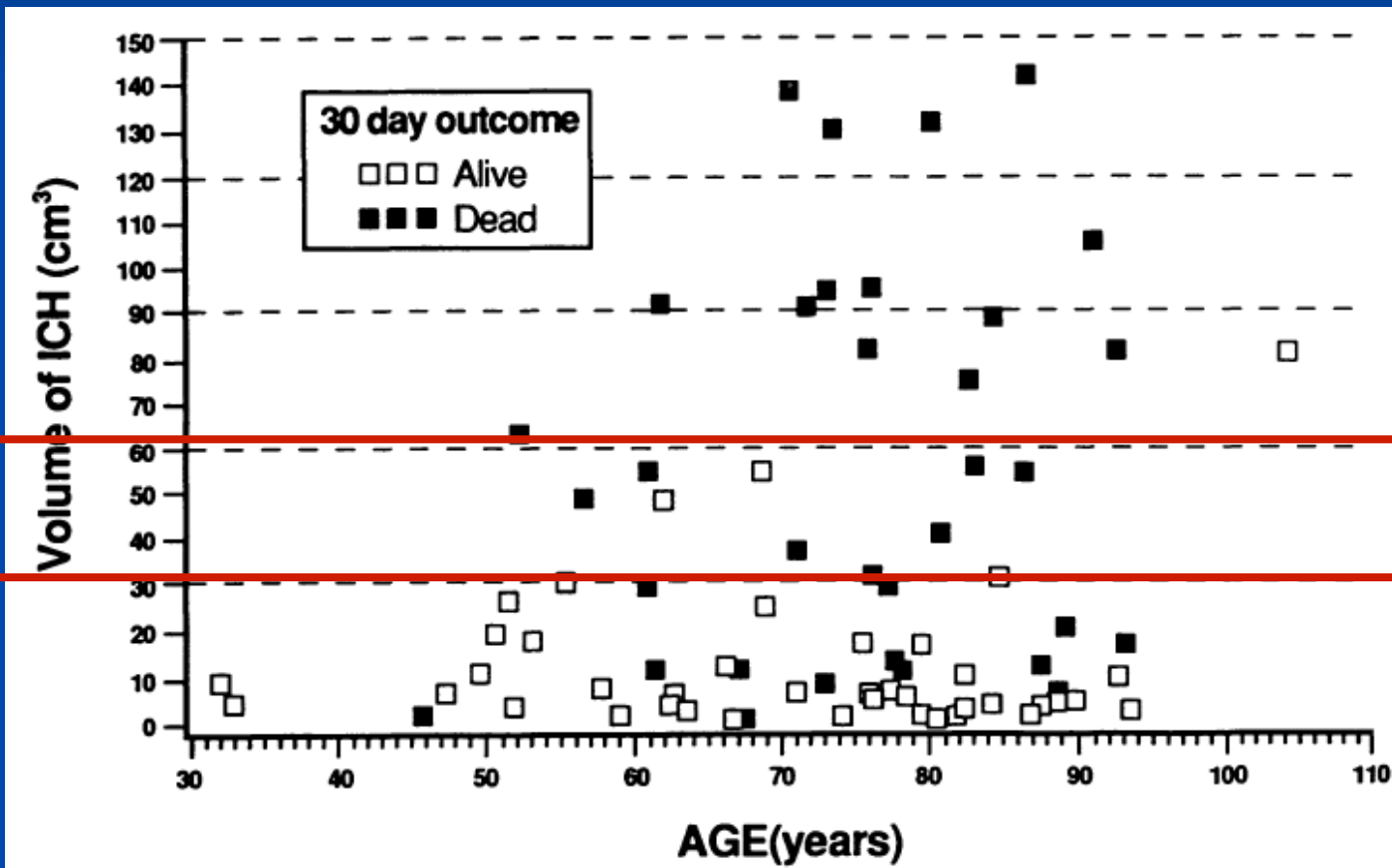
- Lille: <30ml
- Mellem: 30-60ml
- Stor: >60ml

Volume of Intracerebral Hemorrhage
A Powerful and Easy-to-Use Predictor of 30-Day Mortality

Joseph P. Broderick, MD; Thomas G. Brott, MD; John E. Duldner, MD;
Thomas Tomsick, MD; Gertrude Huster, MHS

Stroke 1993;24:987-993

Dyb ICH

FUNC score

- https://www2.massgeneral.org/stopstroke/funcCalculator.aspx

ICH score:

- **GCS**
  - 3-4: 2 point
  - 5-12: 1 point
- **ICH volume**
  - >30 ml: 1 point
- **IVH**
  - Ja: 1 point
- **Infratentoriel**
  - Ja: 1 point
- **Alder**
  - >80: 1 point

- **Mortalitet:**
  - 0 point: 0%
  - 1 point: 13%
  - 2 point: 26%
  - 3 point: 72%
  - 4 point: 97%
  - 5-6 point: 100%

Stroke 2001;32:891-7

Prognose

- 60 årig mand
- Hypertension, AFLI, alkohol overforbrug
- I marevan
- Pludselig hø. sidig hemiparese og afasi
- INR 2,3

CT af cerebrum

Prædiktorer af outcome

Variable	In-Hospital Mortality		(mRS≥3) at 3 mo	
	OR (95% Wald CI)	P Value	OR (95% Wald CI)	P Value
Age, y	1.61 (1.10–2.38)	0.002	1.49 (1.06–2.10)	0.02
Average rate of expansion	3.69 (1.55–8.77)	0.0032	12.99 (2.68–62.5)	0.0015
Spot sign score	4.1 (2.11–7.94)	<0.0001	3 (1.4–4.42)	0.004
IVH	4.89 (1.74–13.33)	0.002	4.89 (1.74–13.33)	0.002
Glucose >170	0.487 (0.08–2.68)	0.40	0.739 (0.18–2.91)	0.66
Anticoagulation	1.99 (0.46–8.55)	0.35	1.51 (0.41–5.62)	0.53
Hypertension	1.405 (0.19–10.30)	0.73	2.022 (0.42–9.62)	0.37
Admissions ICH volume		0.0002		0.002
<30 mL	1		4.89 (1.74–13.33)	
30–60 mL	3.5 (3.21–3.8)		1	
>60 mL	15.68 (4.18–58.89)		1.05 (0.93–1.18)	

131 ptt, 24% with spot sign.   Stroke 2013;44:3097-3102

Prognostiske markører

- Alder
- Størrelse/GCS
- "Spot sign"
- IVH
- Microbleeds

Tak