

PERSPECTIVES 2017

December Friday 15 - BORDEAUX

Organization: E. Ducasse, M. Sibé



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MANAGEMENT OF TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

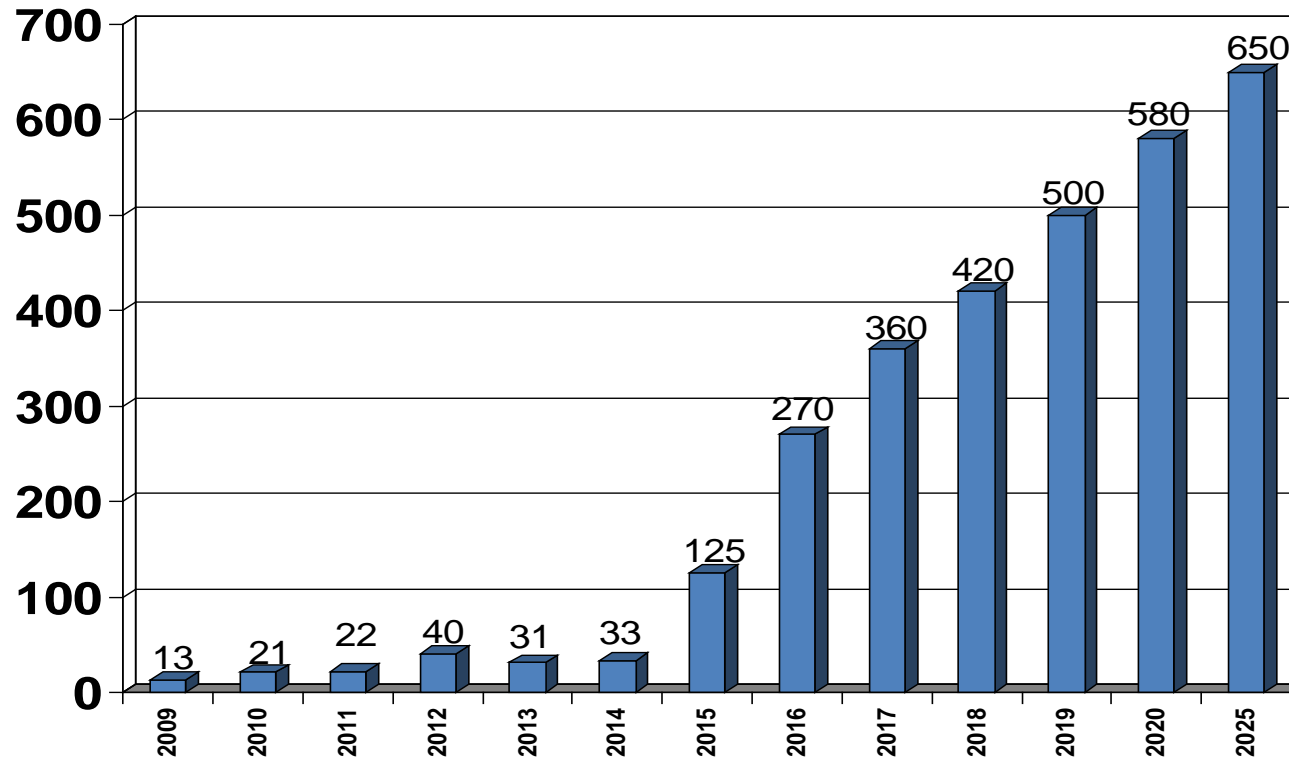
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Disclosure of Interest

Speaker name: Dr LAGOARDE-SEGOT

- I have the following potential conflicts of interest to report:
 - Consulting
 - Employment in industry
 - Shareholder in a healthcare company
 - Owner of a healthcare company
 - Other(s)
- ✓ I do not have any potential conflict of interest

TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE



Cerebral Thrombectomy expectation for CHU Bordeaux

(France : + 167 % in 2016 ; 6000 patients in 2017)

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE



Case #1

Mr R. , 76 yo

History : smoking, HBP

Symptoms at 9h45, right hemiplegia – **NIHSS score : 23**

First MRI at 11H30

Left ischaemic lesion

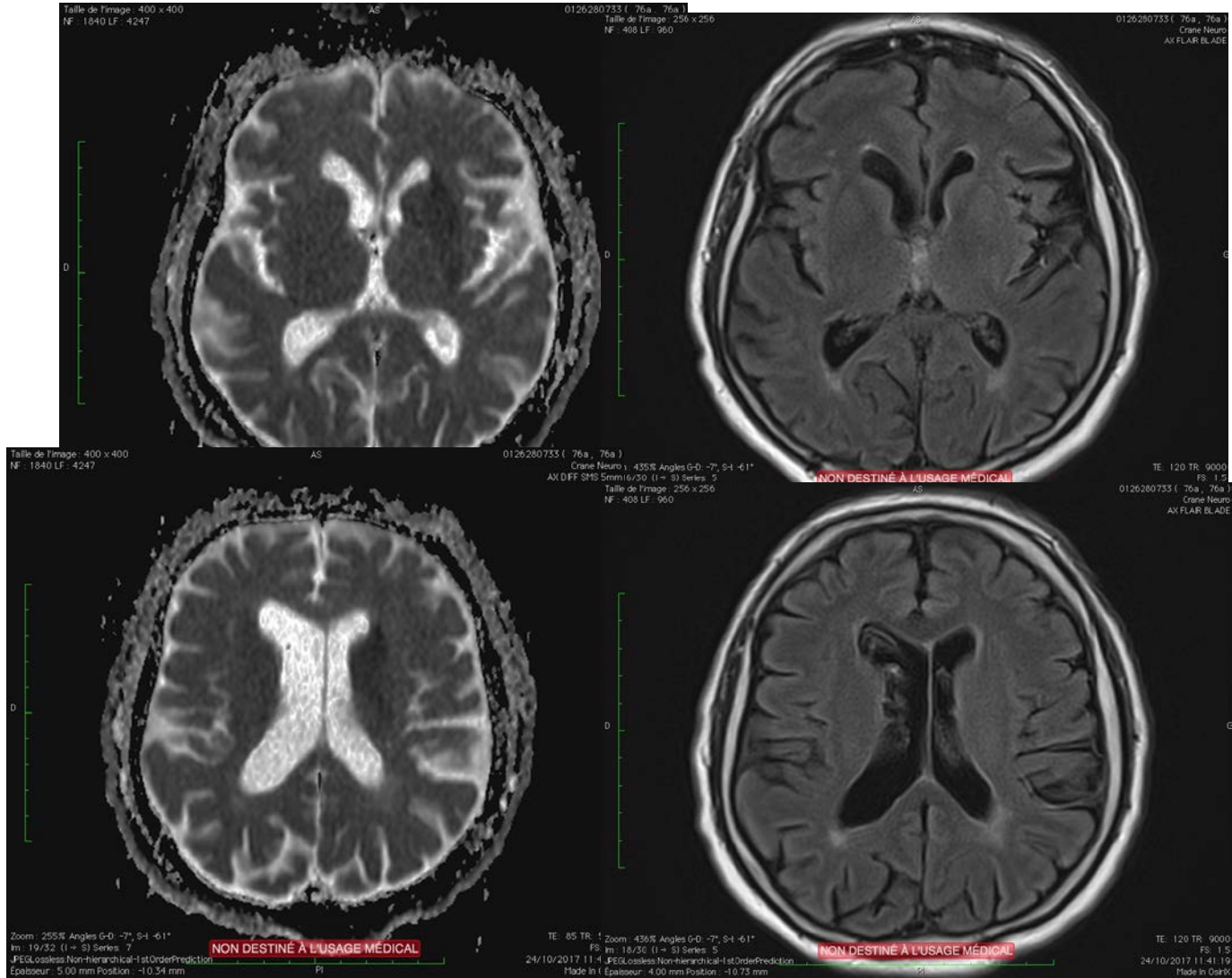
ASPECT score 8/10

Left MCA occlusion / no enhancement of cervical carotid

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #1

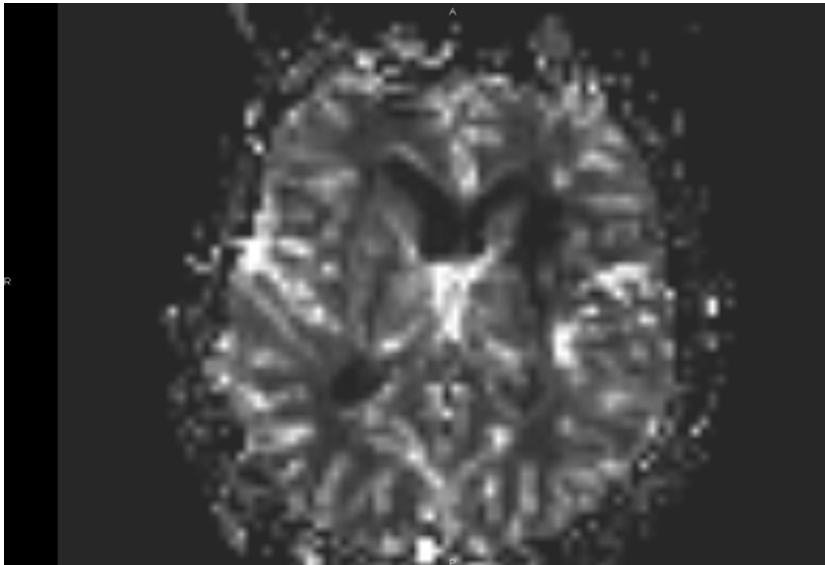
IRM



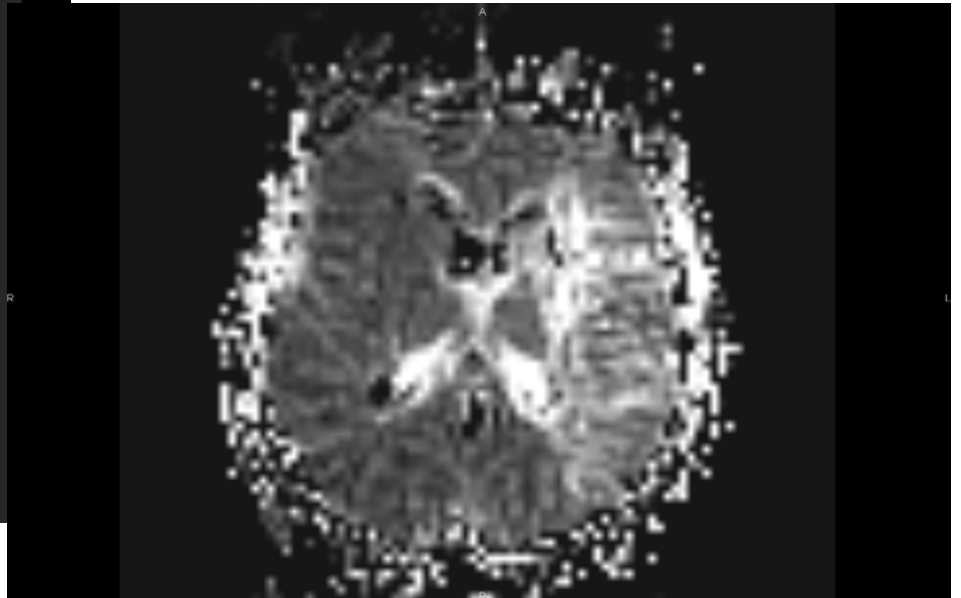
TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

IRM



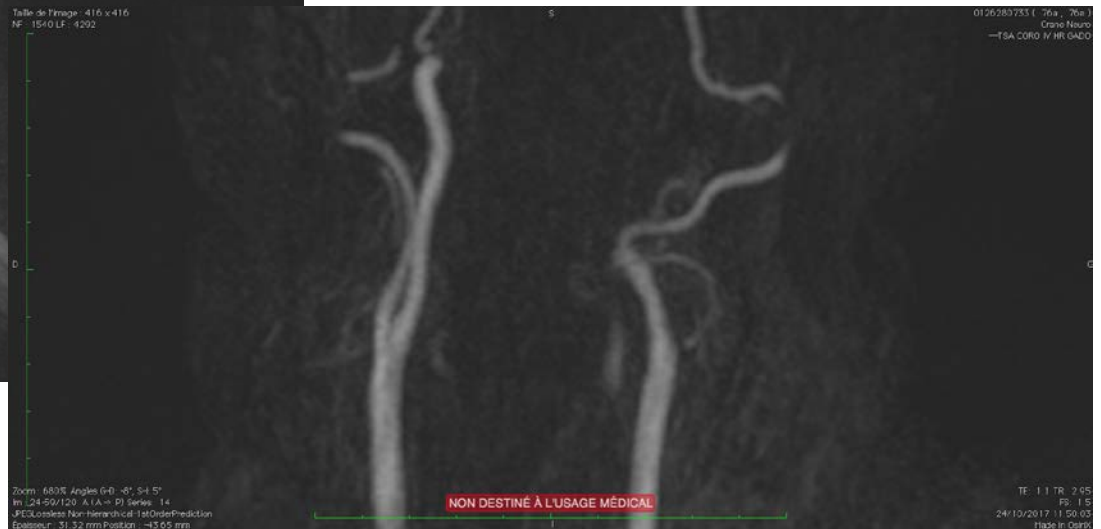
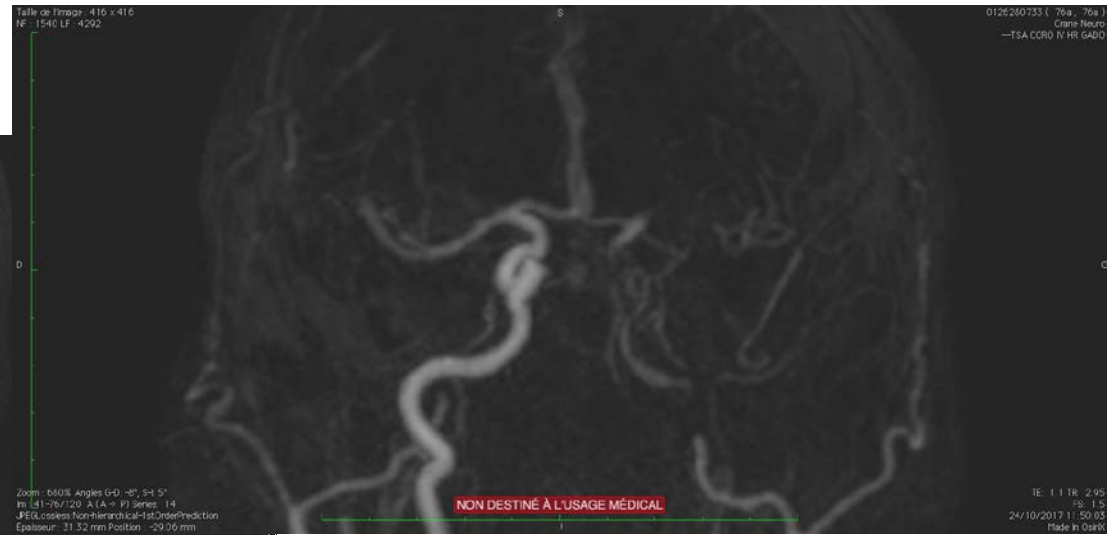
CBV



MTT

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #1



TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #1

iv Thrombolysis

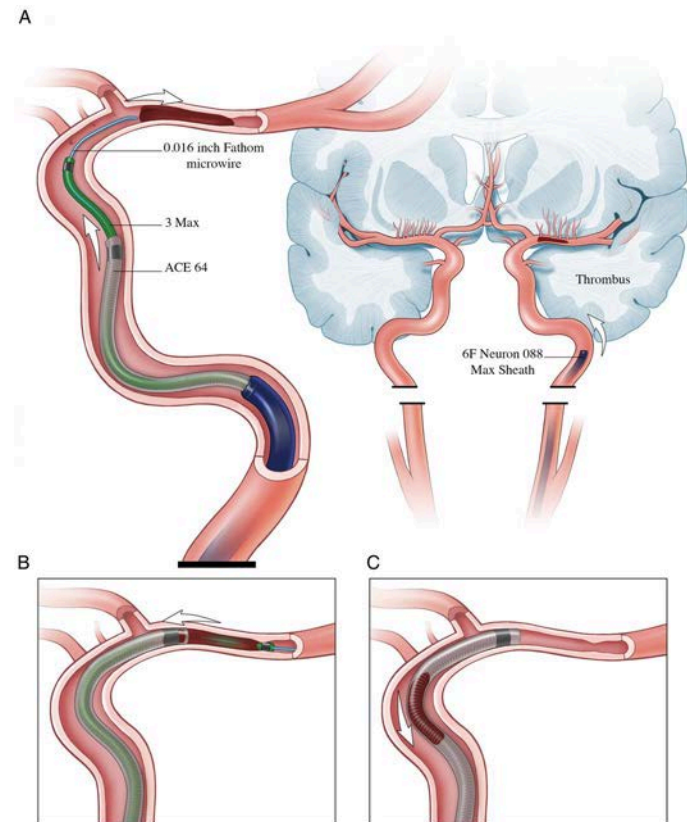
IR room 12h30

Conscious Sédation / local anesthaesia

Right femoral access

8F sheath

*Guiding catheter
Neuron Max 8F 90 cm*



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

Cervical carotid occlusion



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

M1 occlusion



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

Post aspiration



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

carotid angiogram after MCA recanalization



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #1

Post stent and dilatation



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE



Case #1

Retrograd approach
distal aspirations
cervical carotid stent

ASA 500 mg iv

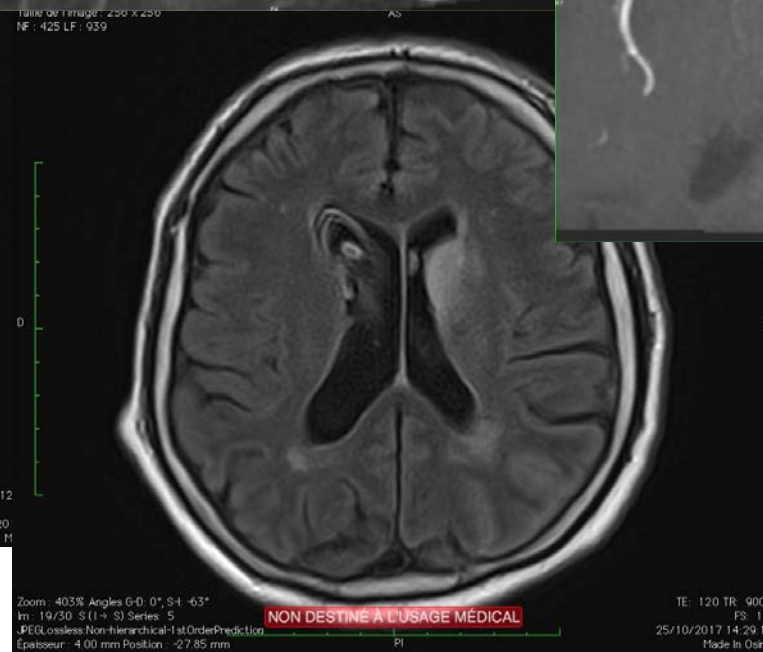
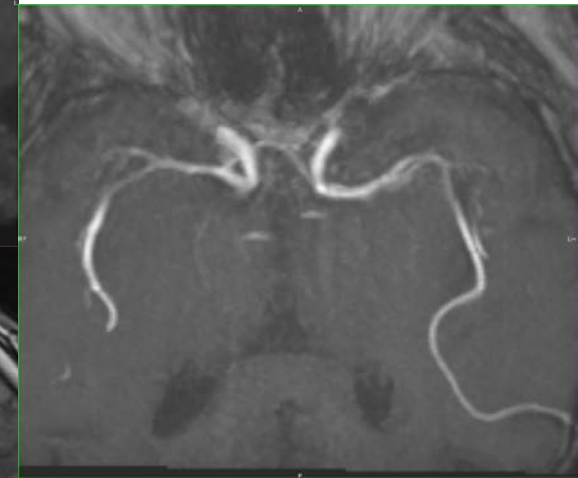
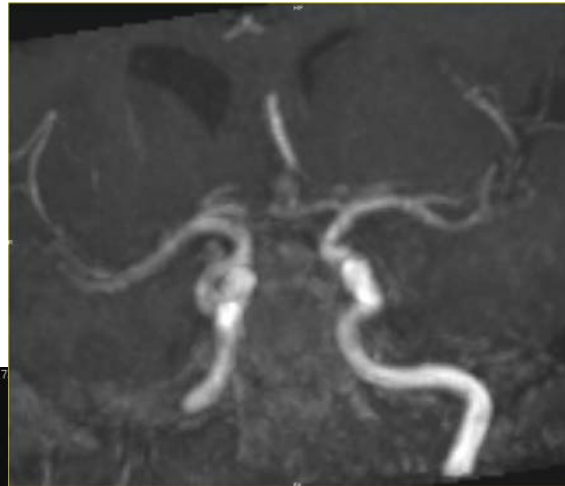
NIHSS score = 5 H+2

NIHSS score = 3 D3

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #1

IRM d1



TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE



Case #2

Mme S. , 56 yo

No medical history

Symptoms 11H, right hemiplegia – **NIHSS score : 20**

MRI 15H

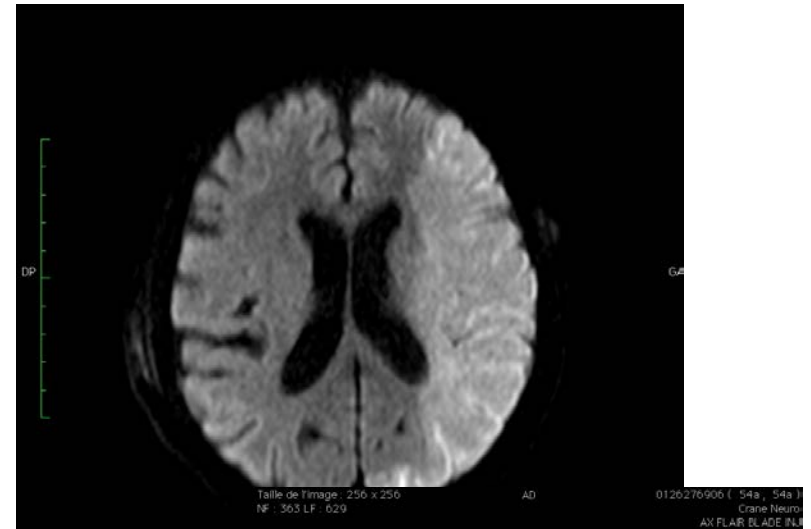
Left ischemic stroke

ASPECT score 2/10

Left MCA occlusion / no enhancement of cervical carotid

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #2

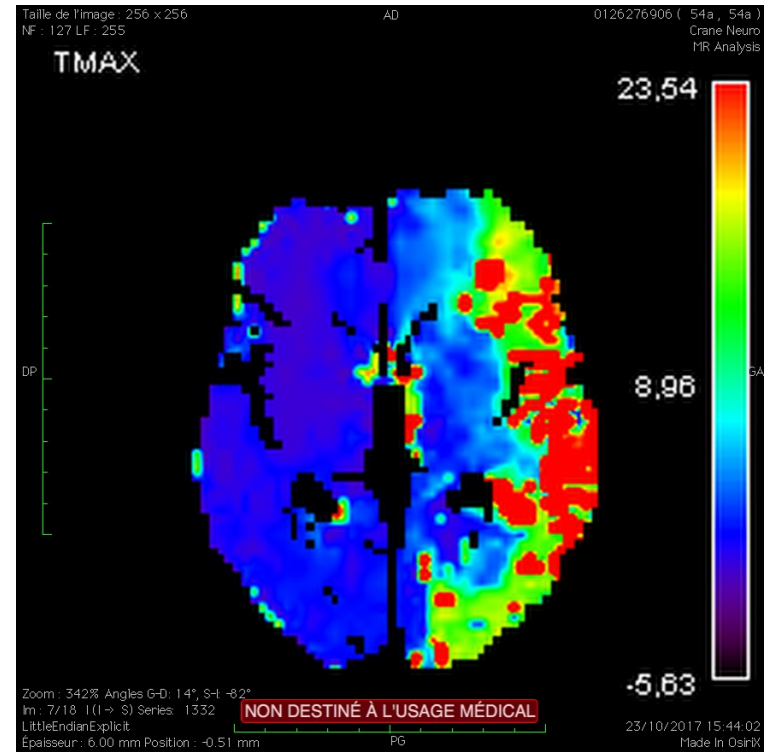
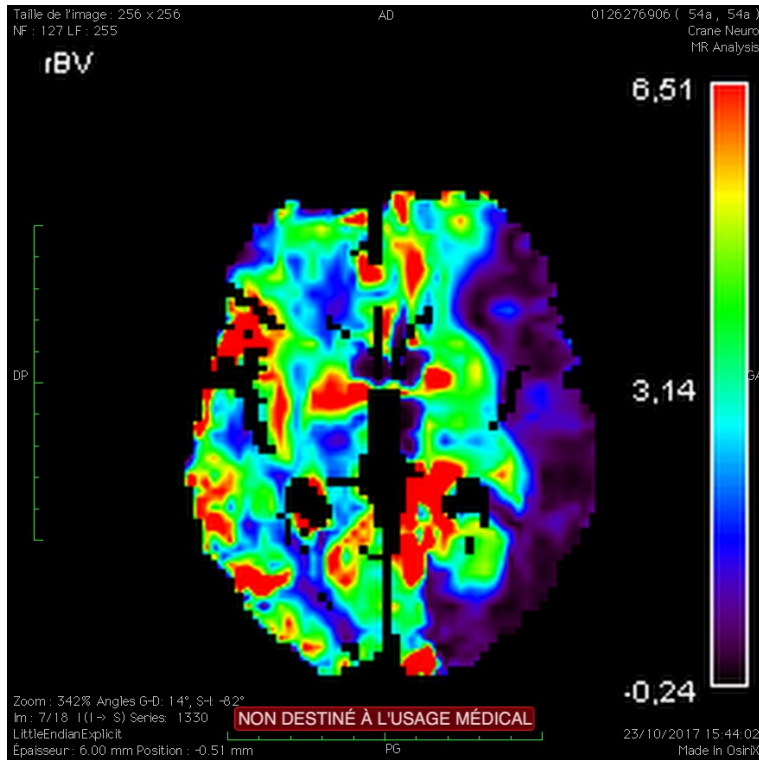


IRM



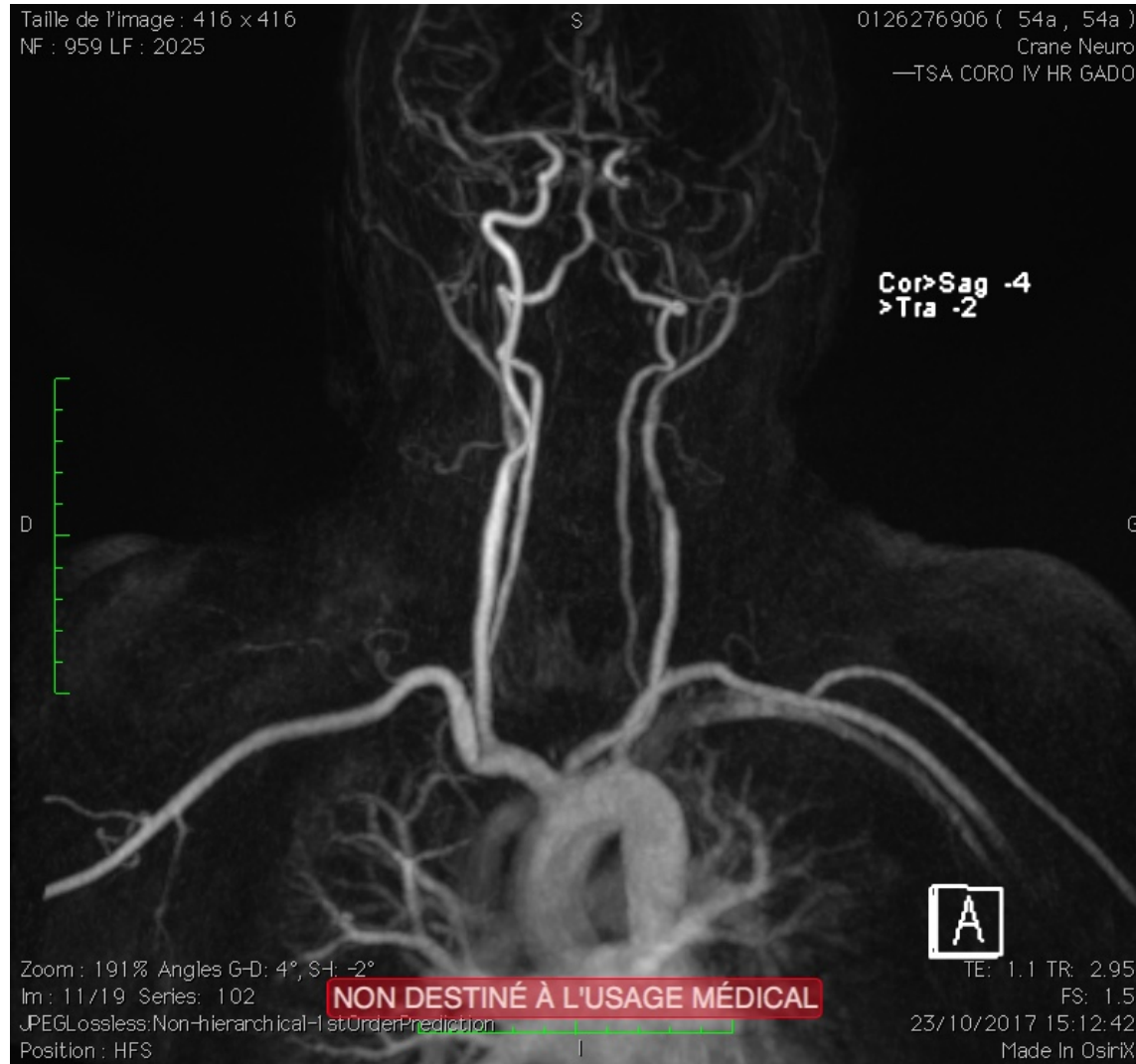
TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #2



TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #2



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE



Case #2

iv thrombolysis

IR room 16H

Conscious Sédation / local anesthésiae

Right femoral access

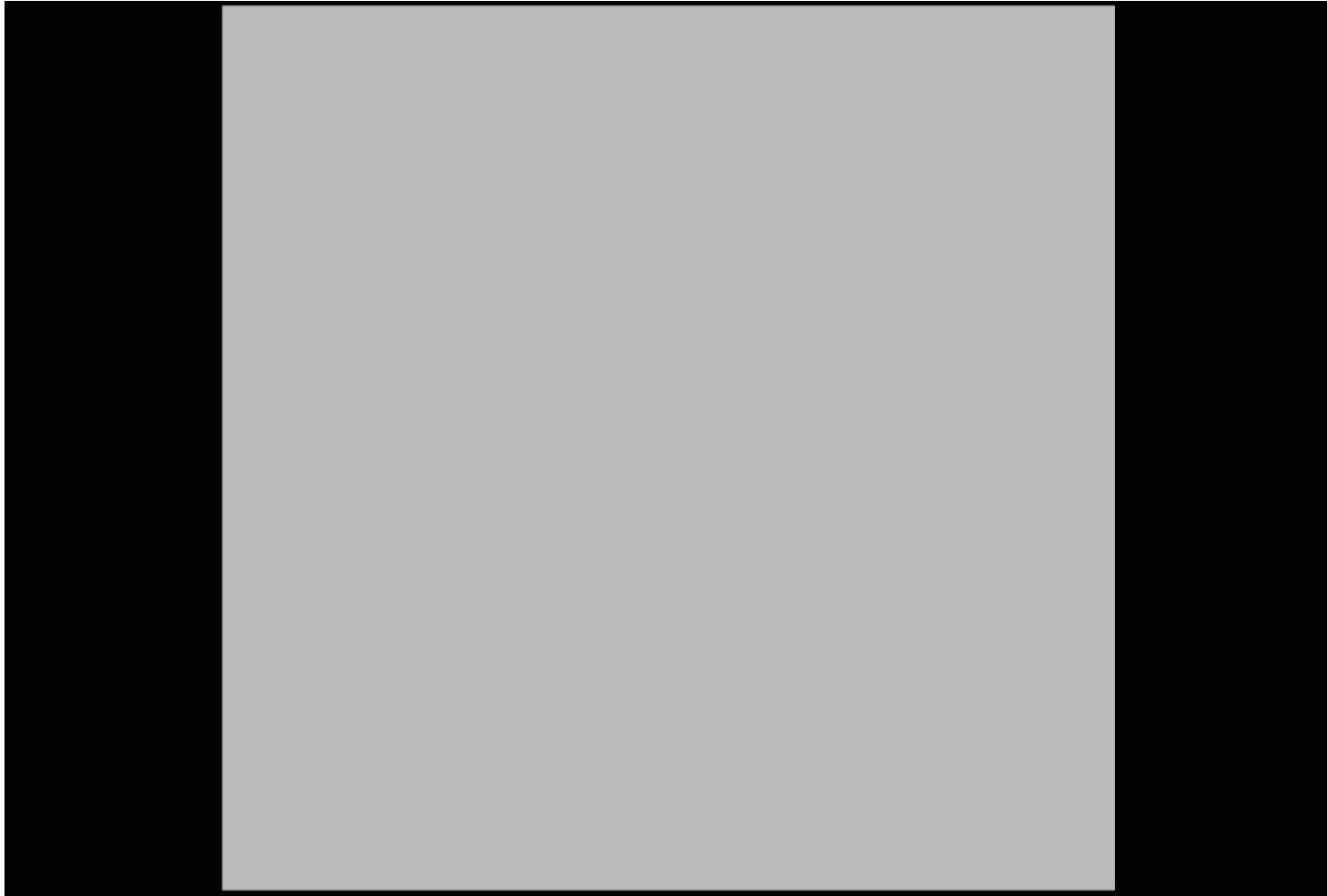
sheath 8F

*Guiding catheter
Neuron Max 8F 90 cm*

TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #2

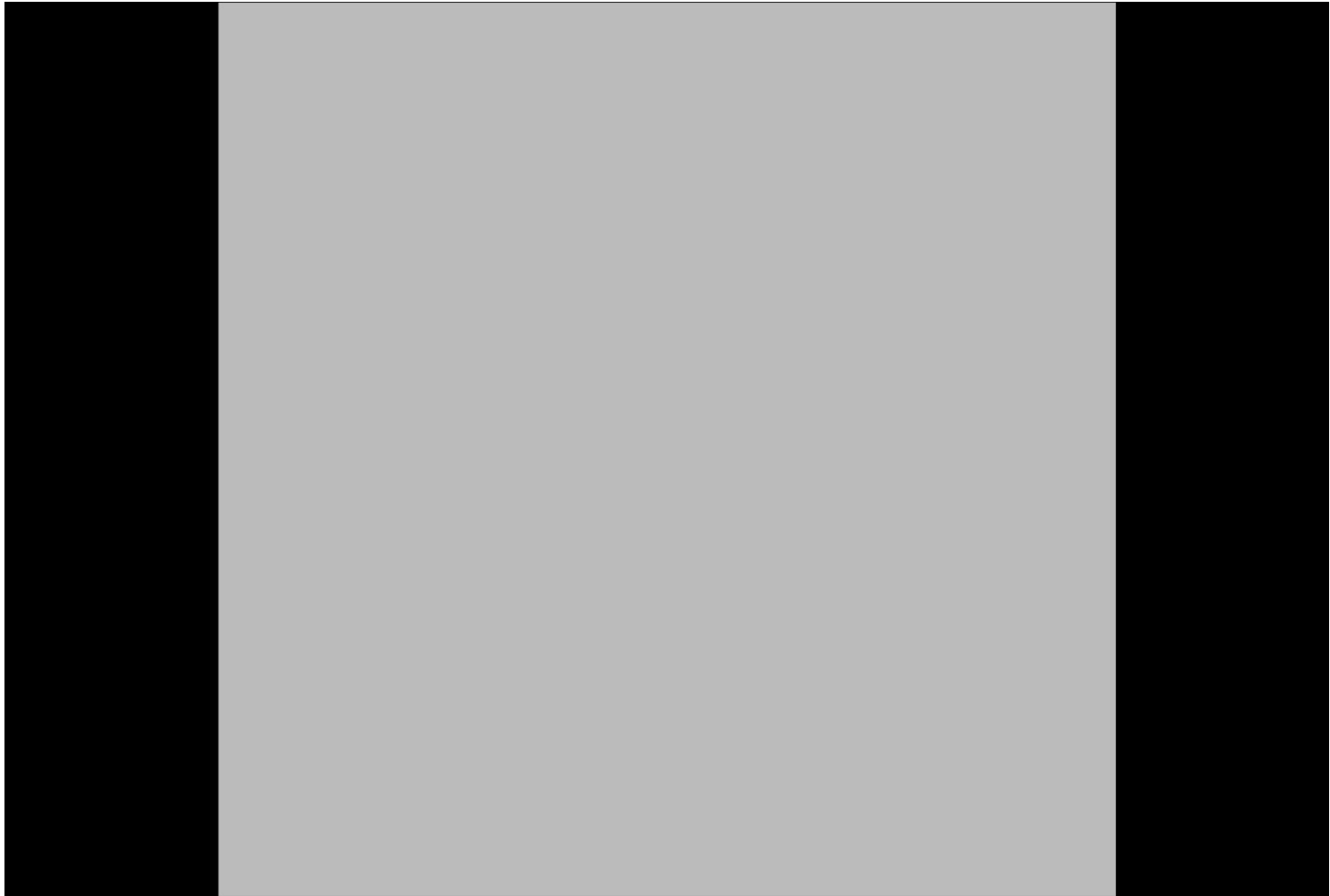
First angiogram



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #2

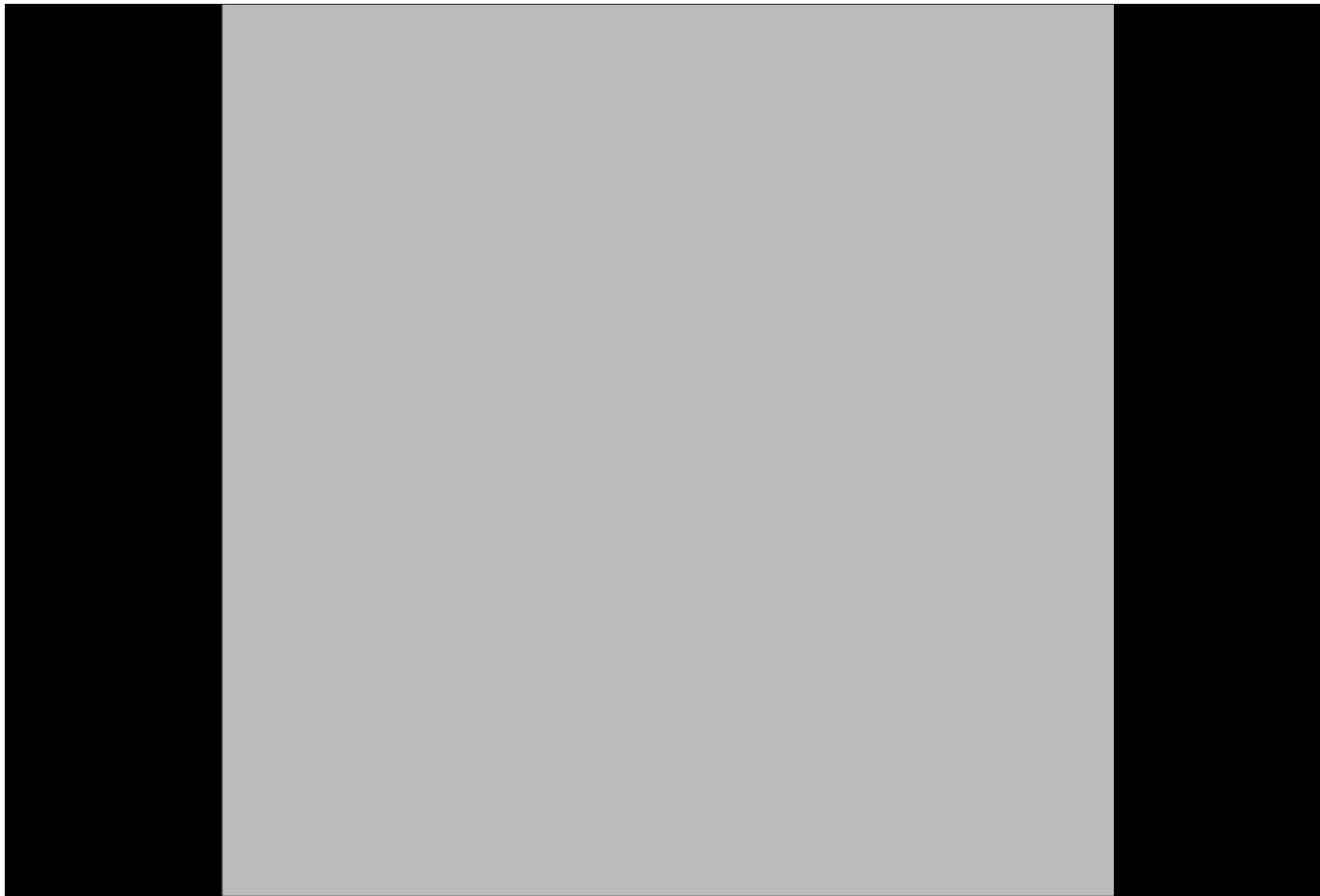
M1 Occlusion



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

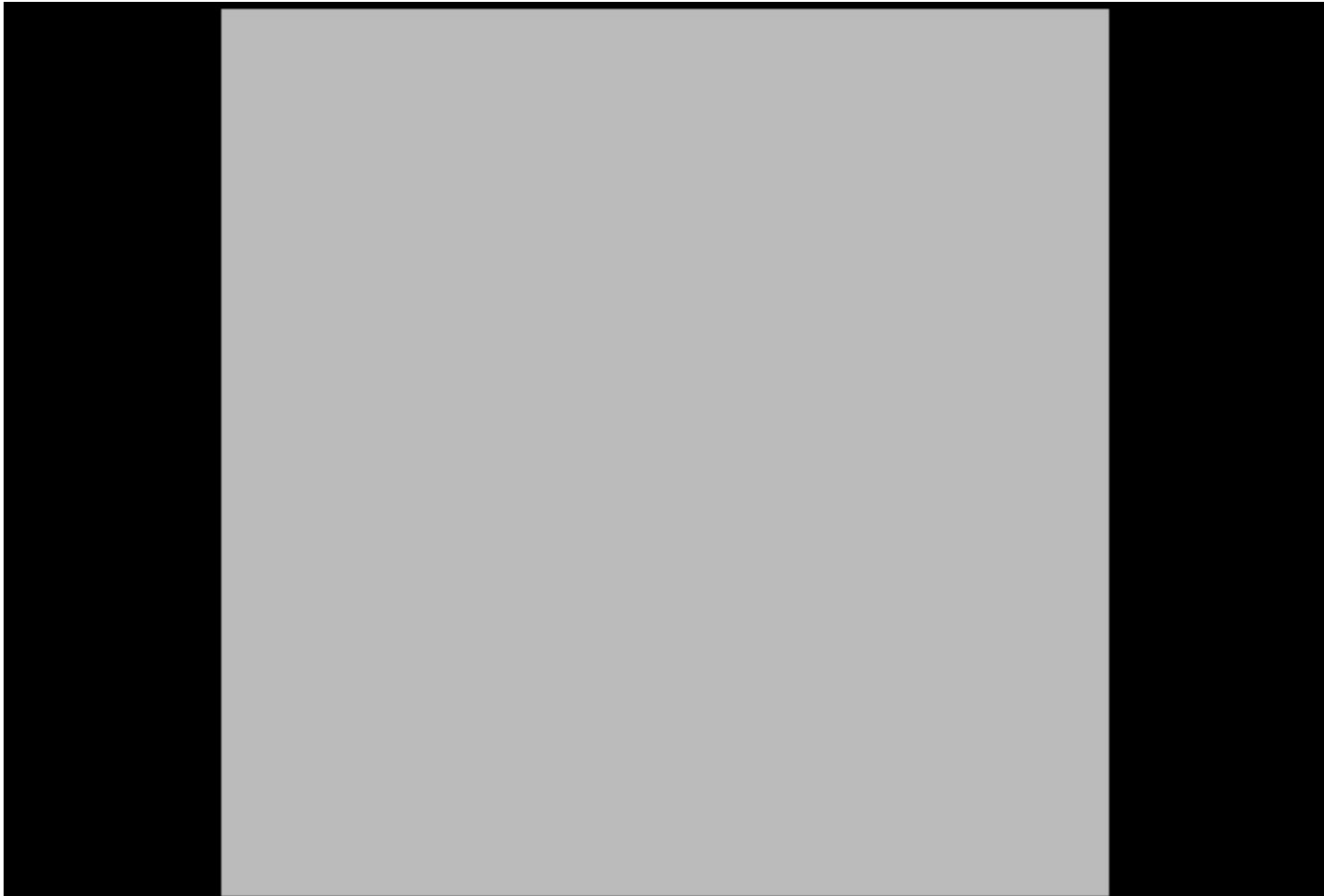
Case #2

post aspiration



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

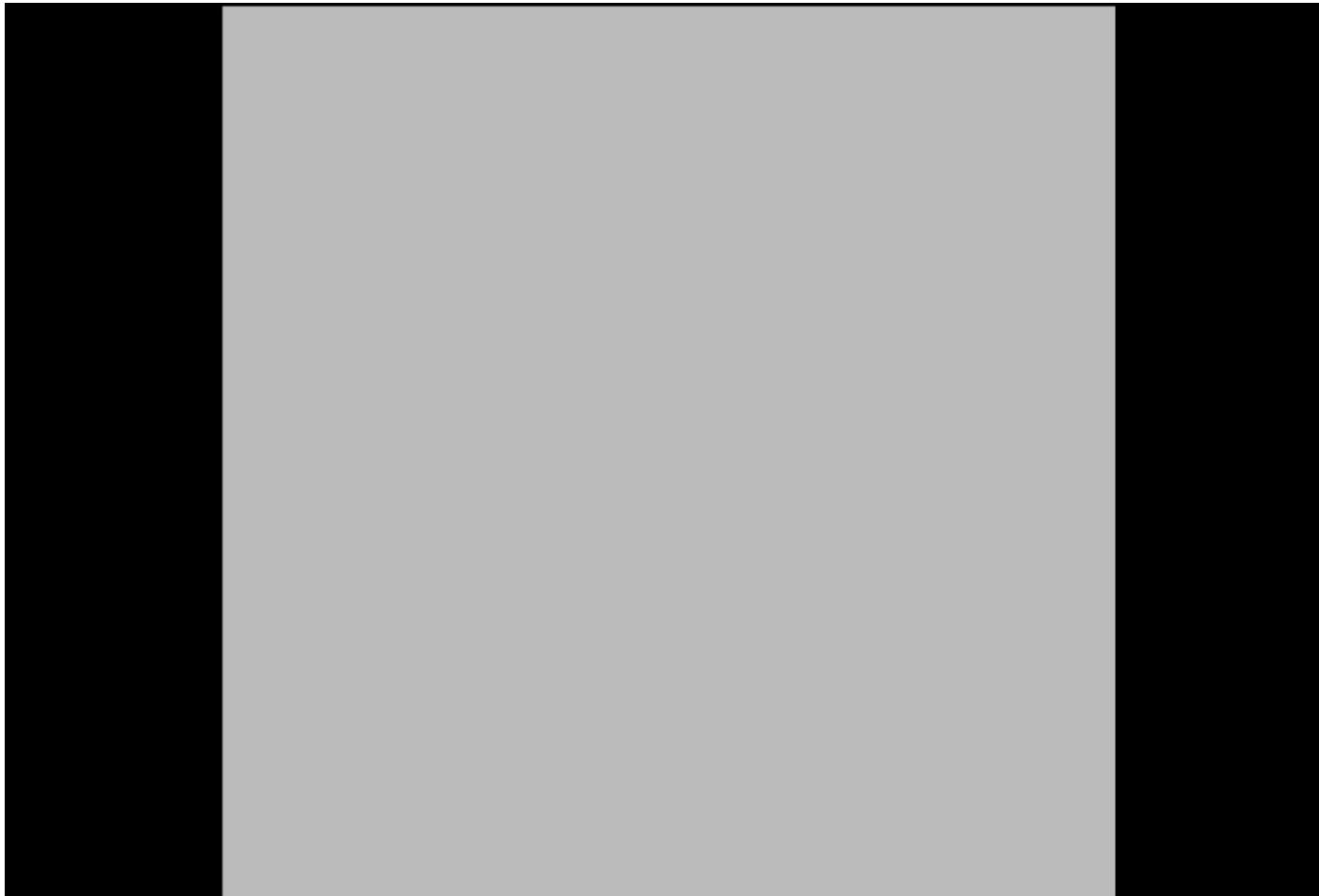
Case #2



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

Case #2

Post stent



TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE



Case #2

Rétrograd approach
Distal aspiration
cervical carotid stent

NIHSS = 24

D1

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

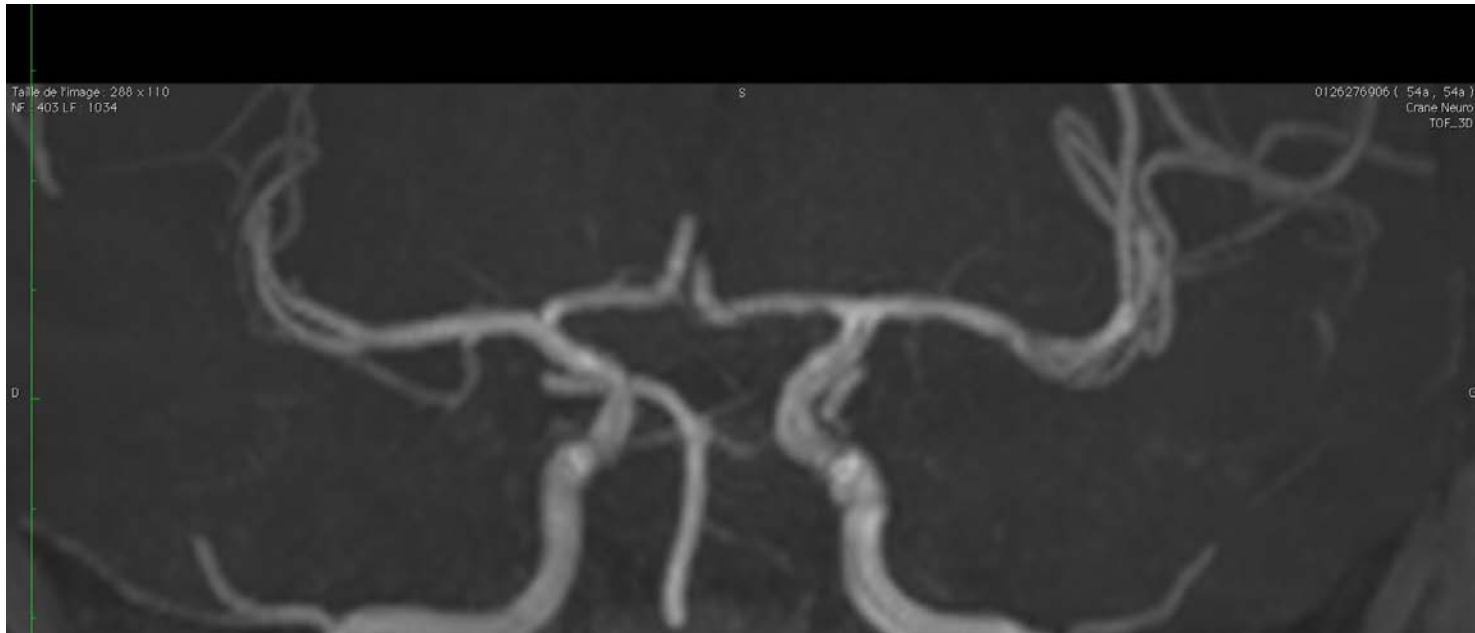
Case #2



IRM D1

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

Case #2



IRM D1

TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

- *Worse prognosis than intracranial occlusion alone*
- *Higher rate of intracranial haemorrhage*
- *primary goal : revascularization of intracranial artery*
- *poor efficacy of intravenous thrombolysis (clinical benefit 20-30 %)*
- *Mechanical thrombectomy is the first line treatment for proximal intracranial occlusion (class I, Level of evidence A)*

TANDEM OCCLUSIONS IN
ACUTE ISCHEMIC STROKE

SHOULD CERVICAL CAROTID BE TREATED DURING INTRACRANIAL
REVASCULARIZATION ?

Benefits

*improve cerebral blood flow in penumbra zone
assist thrombolysis of distal lesions
secure unstable plaque and maintain distal patency*

Cons

*risk of hemorrhagic conversion
risk of dual antiplatelet therapy ++*

no actual recommendation about use of antiplatelet therapy

*Guidelines AHA : stent placement is not considered useful in patient with AIS
class IIb, Level of evidence C*

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE

WHAT IS THE OPTIMAL APPROACH TO TREAT TANDEM OCCLUSIONS ?

Anterograde approach : cervical carotid stenting first

- ✓ *Make an easier access for guiding catheter to the target intracranial lesion*
- ✓ *Improve collateral circulation to the ischaemic zone*
- ✓ *Reducing risk of distal emboli*

Retrograde approach : intracranial revascularization first

- ✓ *Reducing delay to intracranial revascularization*
- ✓ *No risk of interference between carotid stent and thrombectomy devices*

Best clinical outcome in retrograd approach

*Lockau H et al: Mechanical thrombectomy in tandem occlusion: procedural considerations and clinical results
Neuroradiology 57:589–598, 2015*

TANDEM OCCLUSIONS IN ACUTE ISCHEMIC STROKE



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Steglich-Arnholm et al. *Systematic Reviews* (2016) 5:208

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