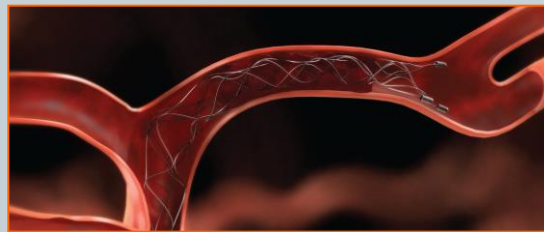


Stentriever in large vessel stroke



Montpellier Experience
Monocentric prospective database 330
patients



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RIQUELME
& A. BONAFE

Disclosure



- AB, PM, VC :
Covidien/Stryker/Codman/Microvention

Résultats Clinique – Série Montpellier



- 330 inclusions en février 2013
- Actuellement 250 Cas revus complets à 3 mois
- 165 cas de circulation antérieure extraits pour analyse :
 - Serie Initiale 2009, *Stroke* (50 patients= 54% good outcome à 3mois, 70% pour la sylvienne.
 - Série Actualisée 2013 circulation antérieure, (330 cas, 165 circulation antérieure, 43% good outcome à 3 mois....

Pourquoi ?



- Introduction de nouveaux praticiens avec courbe d'apprentissage ??
- Elargissement des critères d'inclusion
 - Limite initiale 80 ans dans les 50 premiers
- Quelle influence de la classe d'âge ?
 - Recalcul des résultats sans la classe d'âge >80 : 52,5%!

Résultats D'entrée

characteristic								
s		<50	50-59	60-69	70-79	80+	mean	overall
number		12,12% (20)	13,94% (23)	21,21% (35)	35,15% (58)	17,58% (29)	67,4 [29-90]	165
	sex							52,73% (87/165)
	male	45% (9)	52% (12)	63% (22)	57% (33)	38% (11)		47,27% (78/165)
	female	55% (11)	48% (11)	27% (13)	43% (25)	62% (18)		
NIHSS		16,39	15,24	16,54	17,84	18,83	17,24 [3-27]	161
MRI	ASPECT	6,39	6,27	5,77	6,43	7,25	6,4 [0-10]	159
	T2*+	5% (1)	0	0	0	0		1% (1)
	FLAIR+	41% (7)	50% (11)	44% (14)	30% (15)	30% (8)		37,41% (55/147)
	T2+	7% (1)	21% (4)	10% (3)	4% (2)	8% (2)		9,09% (12/132)

Résultats Procéduraux.

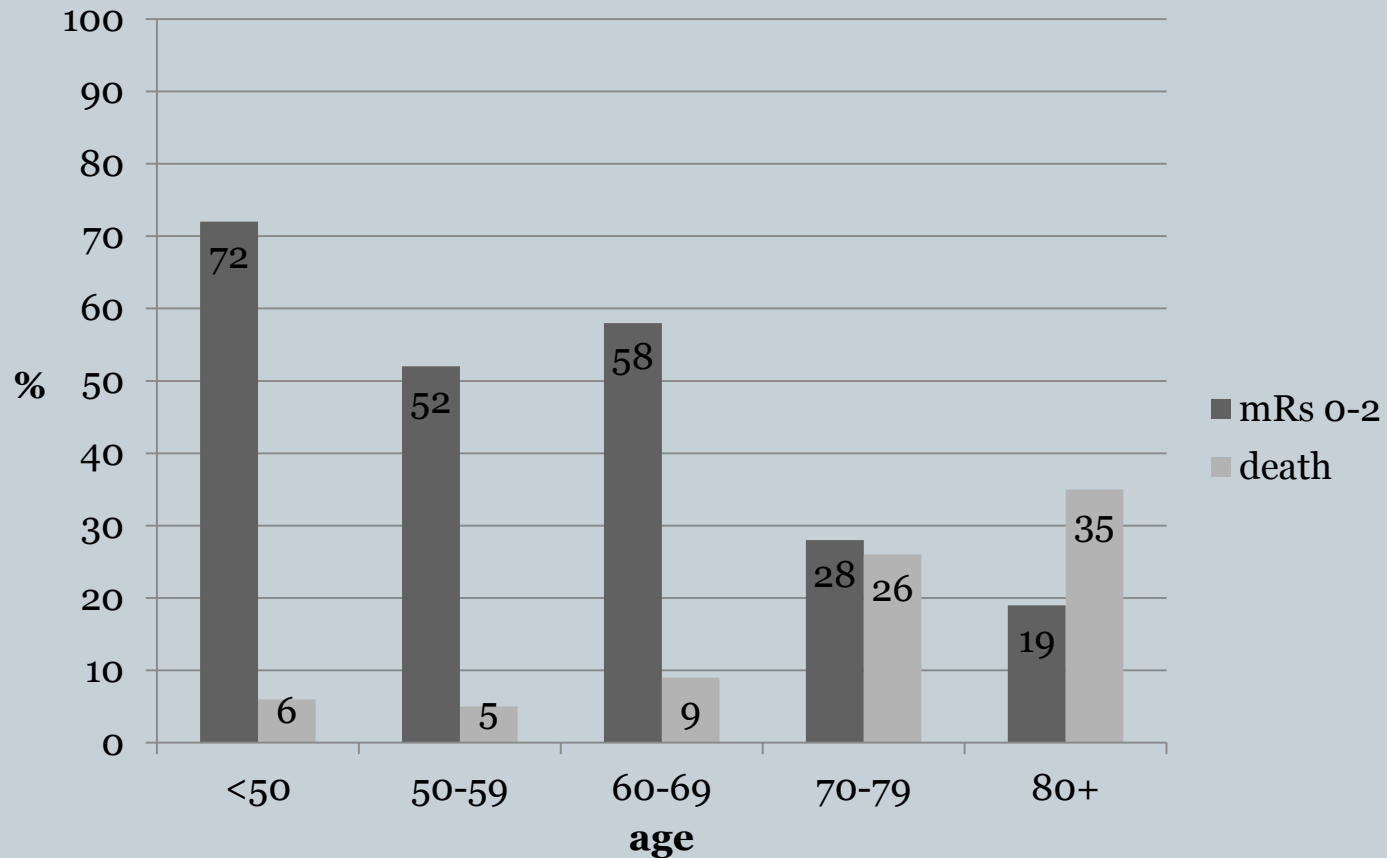


characteristics		<50	50-59	60-69	70-79	80+	mean	overall
procédure	combined	65% (13)	70% (16)	66% (23)	72% (42)	55% (16)		66,7% (110/165)
	stand alone	35% (7)	30% (7)	24% (12)	28% (16)	45% (13)		33,3% (55/165)
	TICI 0-1-2a	21% (4)	17% (4)	11% (4)	23% (13)	24% (7)		20% (33/164)
	TICI 2b-3	79% (15)	83% (19)	89% (31)	77% (44)	76% (22)		80% (131/164)
	time (mn)	320	329	272	323	320	311[31-855]	124
passes complications	passes	2	1,7	1,9	2,2	1,9	1,99 [0-5]	164
	complications	16% (3)	26% (6)	17% (6)	12% (7)	17% (5)		16,46% (27/164)

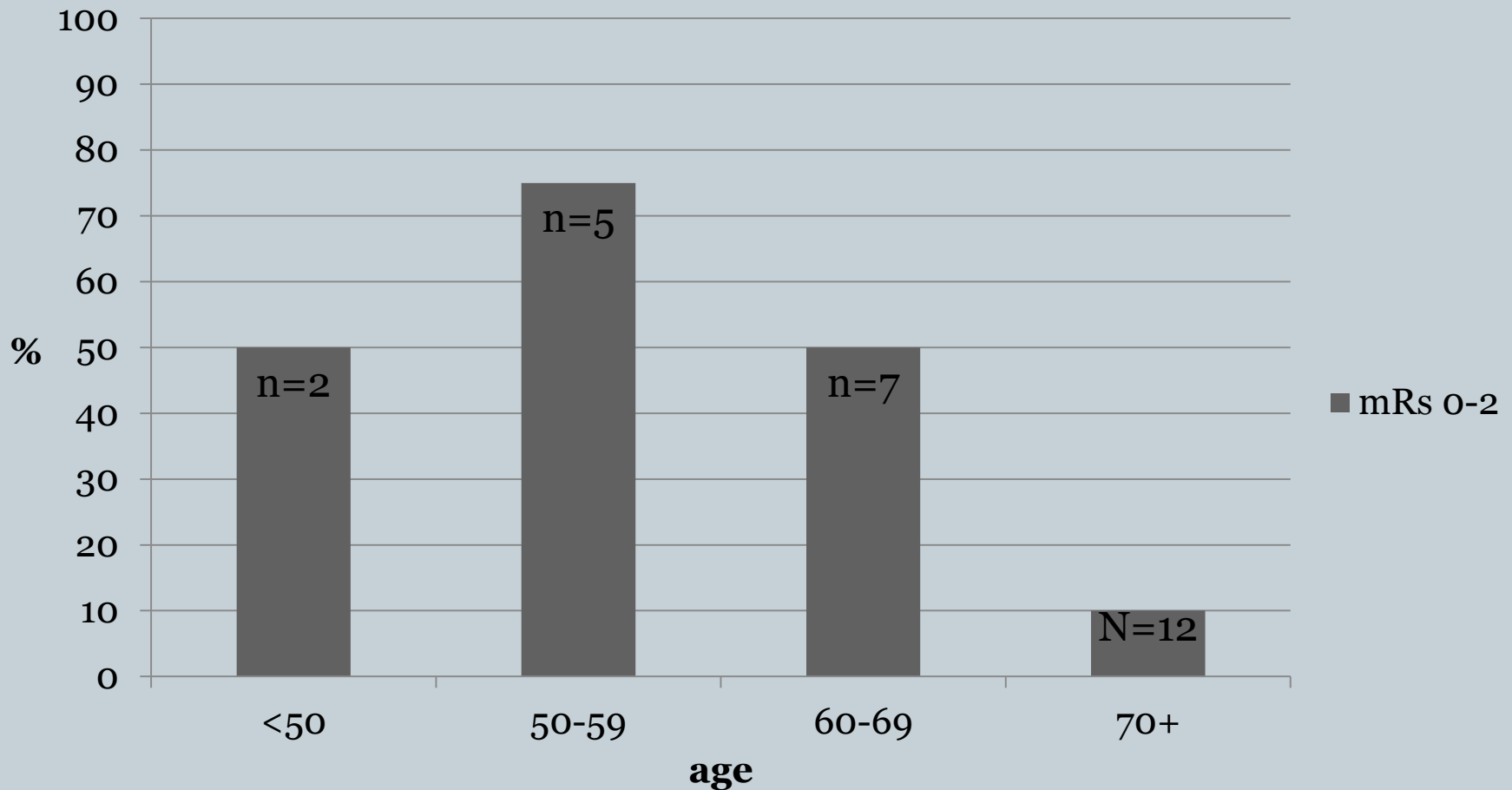
Résultats post-op et Clinique 3 mois

characteristics		<50	50-59	60-69	70-79	80+	mean	overall
POST MT	BBD	71% (12)	50% (11)	69% (20)	69% (35)	31% (9)		62,59% (87)
	hemorraghe	18% (3)	9% (2)	7% (2)	8% (4)	5% (1)		8,7% (12/138)
CT/MRI 24h	hemorraghe	22% (4)	29% (6)	27% (9)	28% (16)	21% (6)		25,95% (41/158)
	aggravation	19% (3)	28% (5)	13% (4)	29% (16)	35% (10)		25% (38/152)
mRs	0/1/2	72% (13)	52% (11)	58% (19)	28% (15)	19% (5)		41,72% (63/151)
	3/4/5/6	28% (5)	48% (10)	42% (14)	72% (38)	72% (21)		58,28% (88/151)
death		6% (1)	5% (1)	9% (3)	26% (14)	35% (9)		18,54% (28/151)
protocol deviation	ASPECT<5	11% (2)	23% (5)	20% (7)	20% (11)	4% (1)		16% (26/159)
	NIH<8	0	4% (1)	3% (1)	0	3% (1)		2% (3/165)

Bénéfice Clinique à 3 mois et Mortalité par classe d'âge



Déviation au protocole (ASPECT<5), Bénéfice clinique ?



Réflexion / Adaptation nécessaires



- **Patients Agés**
 - NIHSS >
 - Moins de fibrinolyse
 - Anatomie plus difficile
 - Physiologie moins favorable.
 - Mais pas systématique les belles histoires existent aussi...
 - ✦ SELECTION +++ RELEVEMENT DU SCORE ASPECT à 7 ?
- **Inversement Patient Jeune < 60 ans**
 - Très bon résultats malgré les déviations...
 - ✦ SELECTION ABAISSEMENT DU SCORE à 4 ?

Résultats de la thrombectomie et Fibrinolyse



- 1. La recanalisation sur SR est rapportée entre 78 – 90% en fonction des équipes..... C'est aussi notre cas.
- 85% de recanalisation et 43% de good outcome ???
 - Ou est l'erreur ???
- Ah , il y a des complications ? Ah bon, on n'en retrouve quasiment pas dans la littérature.....
- Et si on faisait le point chez nous !

Mat & Methods



- Prospective Monocentric registry (RECost Study)

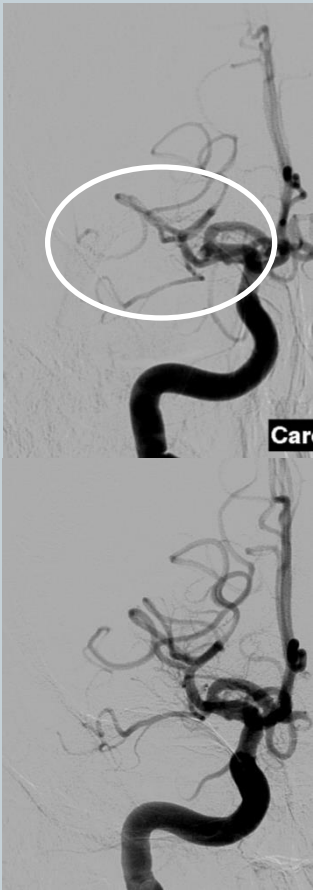
	0h- 4h30	4h30 - 8h	> 8h
MCA	Combined	Standalone T	-
ICA	Combined	Standalone T	-
BA	Combined	Combined	Combined

MRI-DWI
Patient
selection with
ASPECT
Score > 5

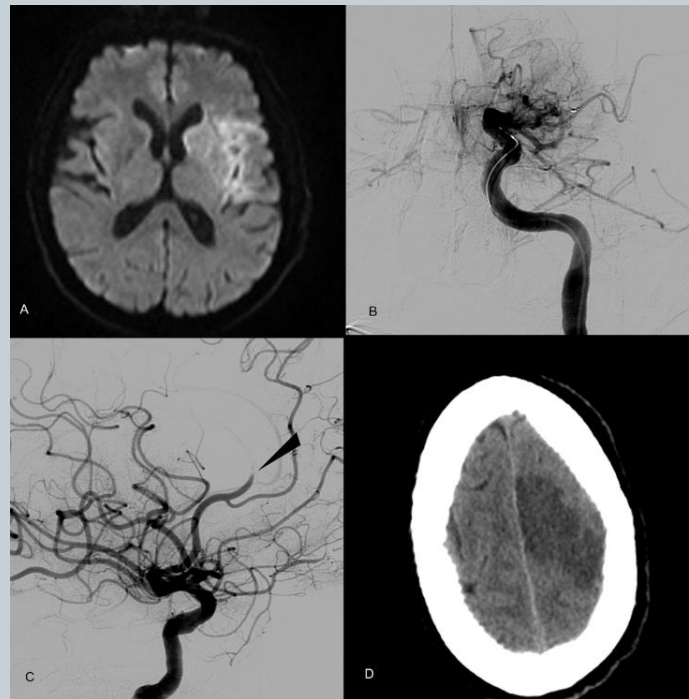
- **301 inclusions** – August 2009-Dec 2012 – Large vessel Occlusion Stroke
 - First 144 retrieved from Database with complete 3 months follow up (2009-2011)
- **Purpose : Specific focus on complication and failure** in the Peri-operative period 1 Month FU

Mat & Meth = Definition

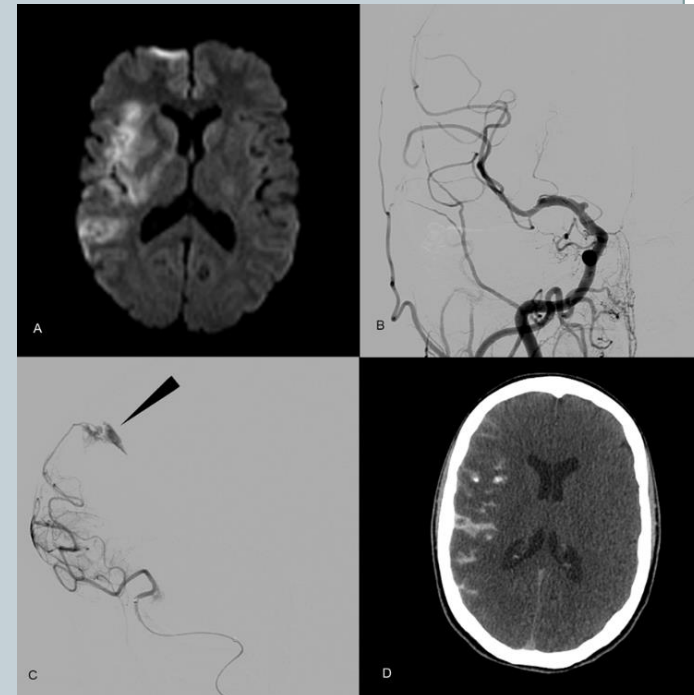
FAILURE
Non TIC1 2b/3



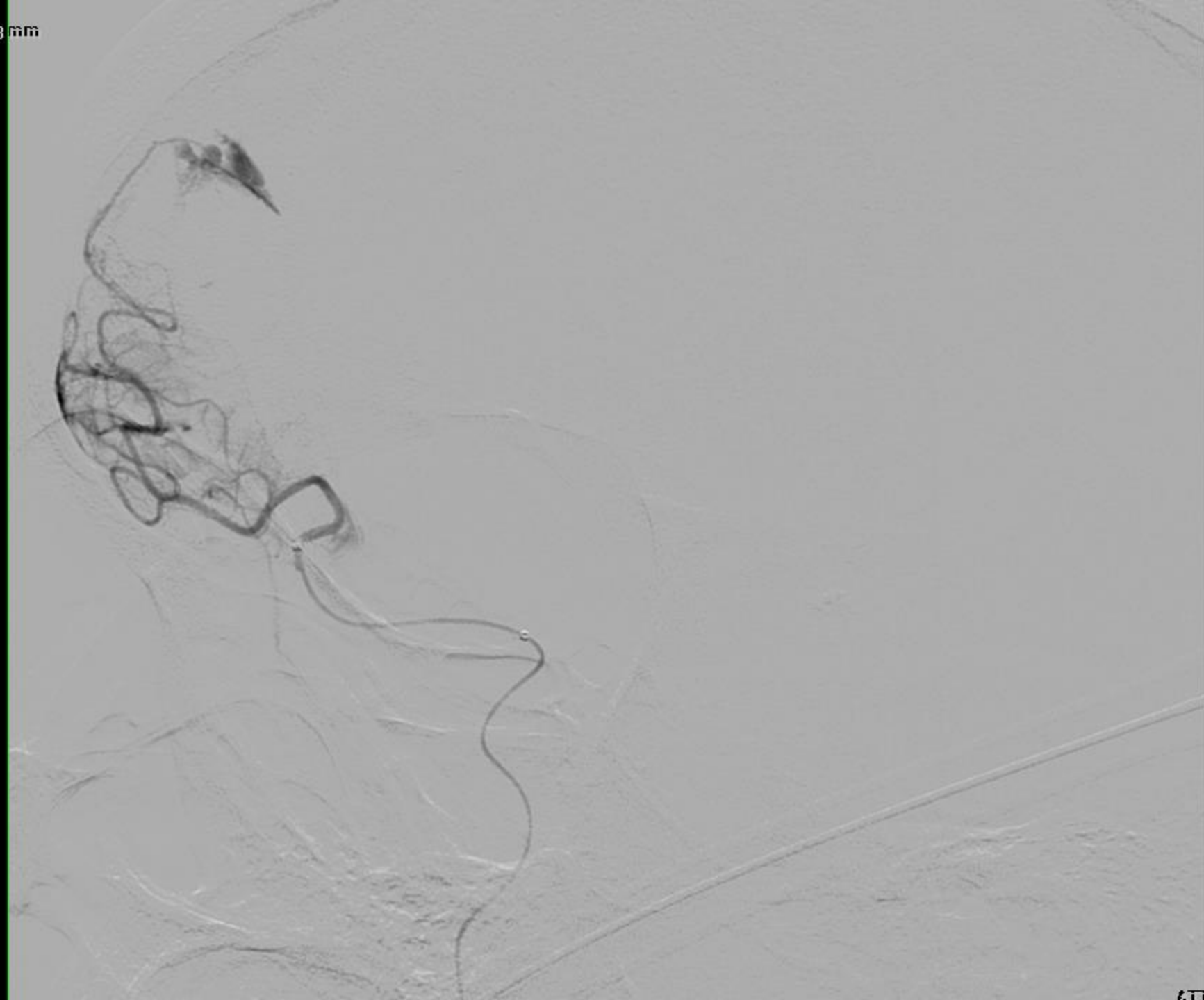
Collateral Infarction
(Other Vasc Territory)



Symptomatic
Intracranial
Hemorrhagic
Complication



10,153 mm



- Post procedural CT



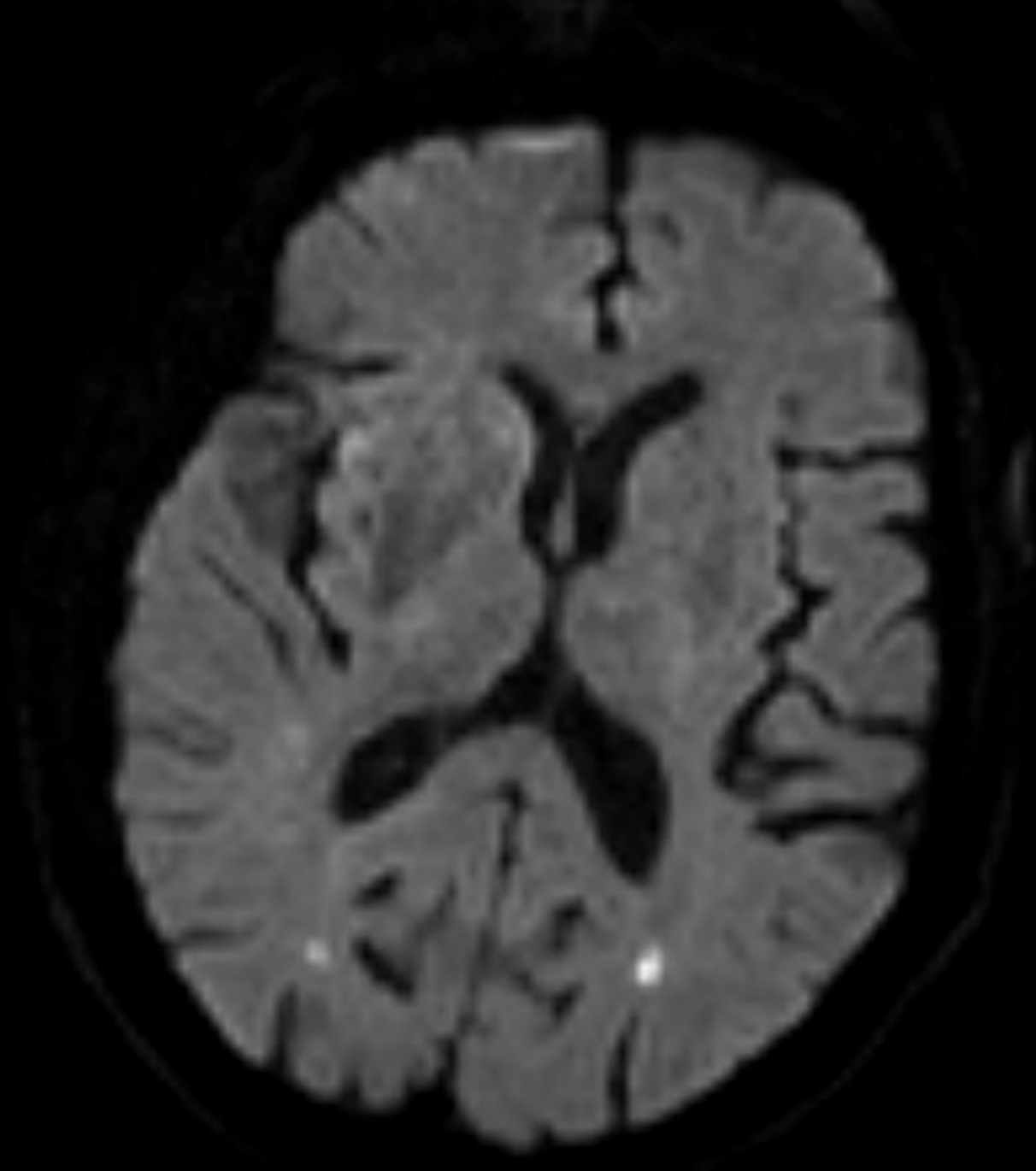
IC STENOSES



- H 74 Ans
- **H+4hoo**
- NIHSS 7-8 but MCA Occlusion ???
- **Cardiovascular Risk Factors**

Cor>Tra 30
>Sag 5









This is a grayscale angiogram of a cerebral artery. The main vessel runs vertically through the center of the image. It has several branches extending outwards. A stent, which appears as a series of small, dark, oval-shaped segments, is deployed across a stenotic (narrowed) area of the main vessel. The stent is positioned in the lower-middle part of the image. The vessel continues downwards and then curves to the left. The background is a light gray, and the overall image has a slightly grainy texture.

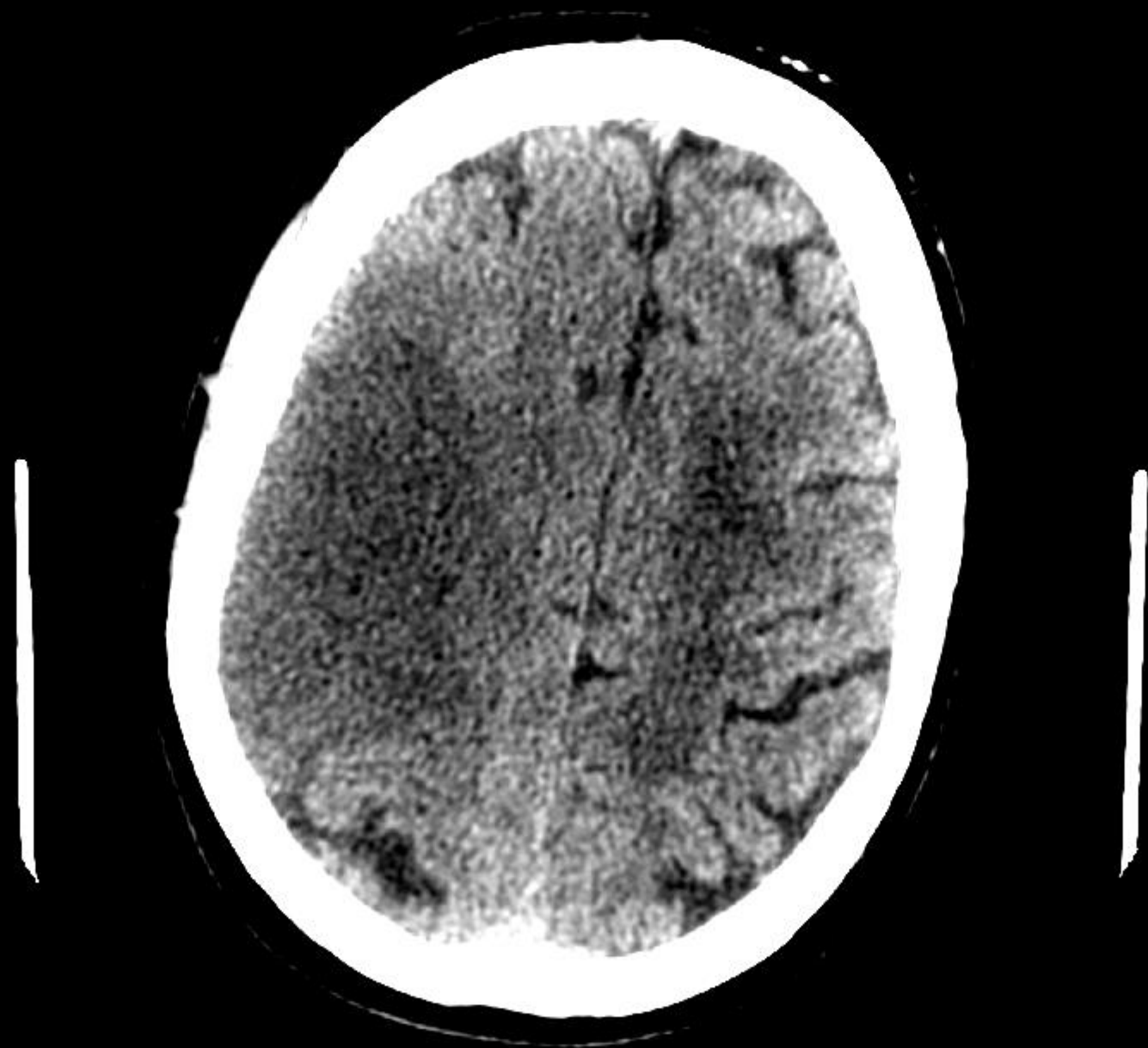
Stent deploye

ATTENTION
1 A 35 190,6 mm² Average 672,3



ATTENTION : Me
1 / 35 190,6 mm² Average 678,6 SD 6





Results

Overall Peri-operative Mortality 0-30 Days = **18,4%**

Population	Rate of perioperative mortality	p
Overall cohort	18.4%	
Embolic complication	38.9%	0.0176
Hemorrhagic complication	45.5%	0.0236
Intra cranial stenosis	57.1%	0.0176
Failure	45%	0.003

Failure **13,9%**



Mortality **45%**

Collateral Infarction **12,5%**



Mortality **38,9%**

Symptomatic HC **7,6%**



Mortality **45.5%**

Discussion



Recanalisation Failure **13,9%**  Mortality **45%**

(n= 150)

No significant difference between Standalone Thrombectomy / Combined Treatment

Retrospective Multicenter Study of Solitaire FR for Revascularization in the Treatment of Acute Ischemic Stroke

Antoni Dávalos, MD; Vitor Mendes Pereira, MD; René Chapot, MD; Alain Bonafé, MD;
Tommy Andersson, MD; Jan Gralla, MD; by the Solitaire Group

19% vs 14%

Endovascular Treatment of Acute Intracerebral Artery Occlusions with the Solitaire Stent: Single-Centre Experience with 108 Recanalization Procedures

F. Dorn^a S. Stehle^b H. Lockau^a C. Zimmer^b T. Liebig^a

A TICI 2b/3 result was reached significantly more often when intravenous lysis was performed before endovascular treatment (85.4 vs. 65.8%, $p = 0.02$, Fisher's exact test).

Selection Bias ++++++

Discussion

Collateral Infarction **12,5%**



Mortality **38,9%**

ORIGINAL RESEARCH

J.Y. Chueh
A.K. Wakhloo
M.J. Gounis

Effectiveness of Mechanical Endovascular Thrombectomy in a Model System of Cerebrovascular Occlusion

BACKGROUND AND PURPOSE: A number of thrombectomy devices are currently undergoing clinical evaluation; meanwhile, various novel devices are under investigation. The aims of this study were to quantify flow restoration and the particle size distribution of the effluent pursuant to MET in an in vitro occlusion model.

Penumbra
Solitaire
Waveguide
MERC1

Posterior territory > Anterior
7/35 (20%) 11/109 (10,1%)



BGC?

IV fibrinolysis did not act as a protective factor for collateral infarction

Discussion

SHComplications

7,6%



Mortality 45.5%

Outcomes of Mechanical Endovascular Therapy for Acute Ischemic Stroke

A Clinical Registry Study and Systematic Review

Aymeric Rouchaud, MD; Mikael Mazighi, MD, PhD; Julien Labreuche, BST; Elena Meseguer, MD; Jean-Michel Serfaty, MD; Jean-Pierre Laissy, MD; Philippa C. Lavallée, MD; Lucie Cabrejo, MD; Céline Guidoux, MD; Bertrand Lapergue, MD; Isabelle F. Klein, MD, PhD; Jean-Marc Olivot, MD, PhD; Halim Abboud, MD; Olivier Simon, MD, PhD; Elisabeth Schouman-Claeys, MD; Pierre Amarenco, MD

SHC = 8%

Age: Major predictive factor for SICH++

* IV fibrinolysis
&
*Time Symptoms
Onset to final TICI

DID NOT INFLUENCE THE SHC RATE

Discussion



IC Stenoses 5.4% → Mortality 57%

- Low NIHSS and Small Infarct contrasting with a major vessel occlusion is an indirect sign of pre-existing Stenosis with previous large collateral blood supply organisation.
- Initial angiographic aspect could not be informative since a clot lie inside the stenosis.
- We recommend :
 - A first SR pass can be done to clear the lesion then STOP
 - A smooth and cautious angioplasty is mandatory to avoid vessel dissection or perforation.
 - Acute Stenting can be discussed depending on lesion aspect/infarct size.

MISMATCH (NIHSS&INFARCT SIZE) VS (OCCLUSION location AND TIME)

Conclusion :



TAUX CUMULE ECHEC ET/OU COMPLICATION
= **39,6%**

= **61% des patients seulement ont ou un procédure idéale, réussie, non compliquée !!!!!!!**

= **Parmi eux on trouve les 42% qui ont un 'good outcome'**

**Infine = 69% des patients (Tici 2b/3 non compliqué)
ont un good outcome *******

**Enorme marge de progression
Médicale/Industrielle**



Mer  i...