

urpass

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43^{ème} CONGRÈS ANNUEL de la Société Française de NeuroRadiologie

du 30 mars au 1^{er} avril 2016

Novotel Paris Tour Eiffel

www.sfnrcongres.net

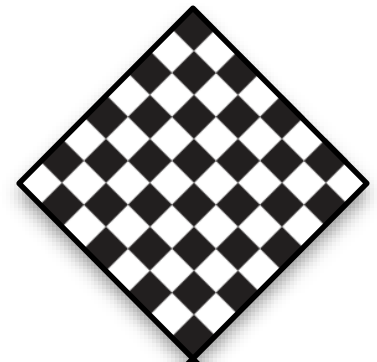


SFNR
SOCIÉTÉ FRANÇAISE

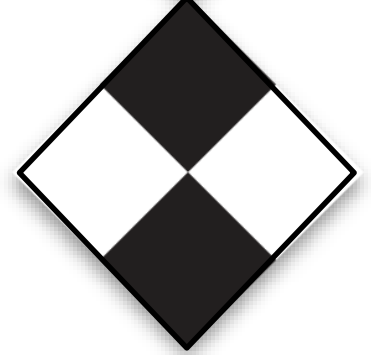
Surpass™ Flow Diverter

- Consistent mesh-density (from 48 wires up to 96 wires)
- Customized preloaded over-the-wire system (0.014" microwire)
- Longer device lengths offered across multiple diameters

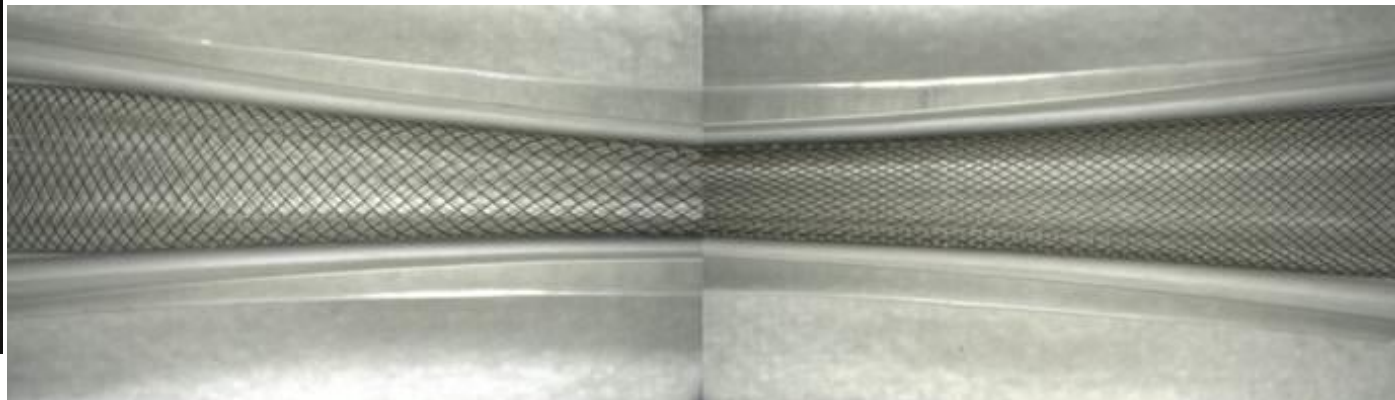
A

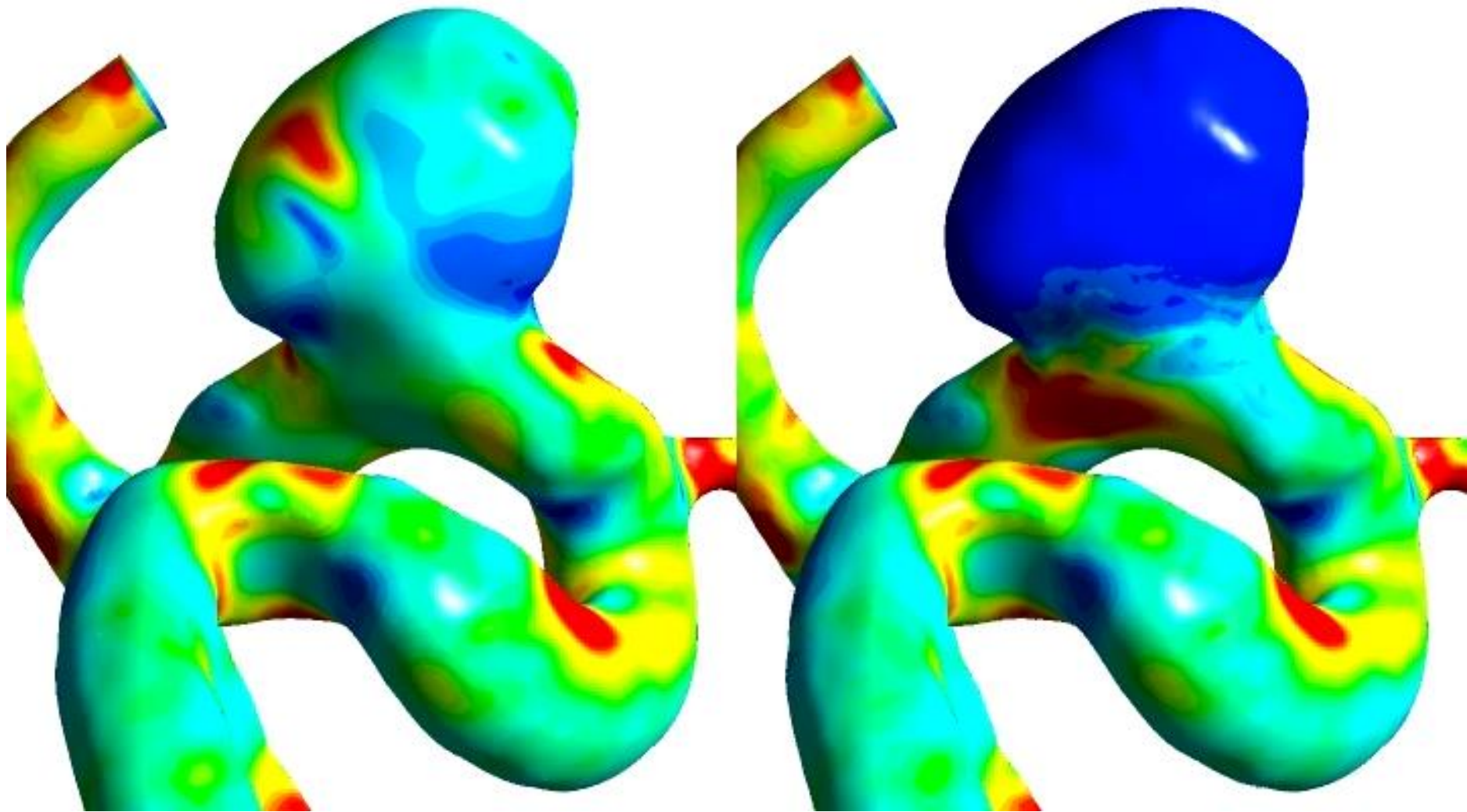


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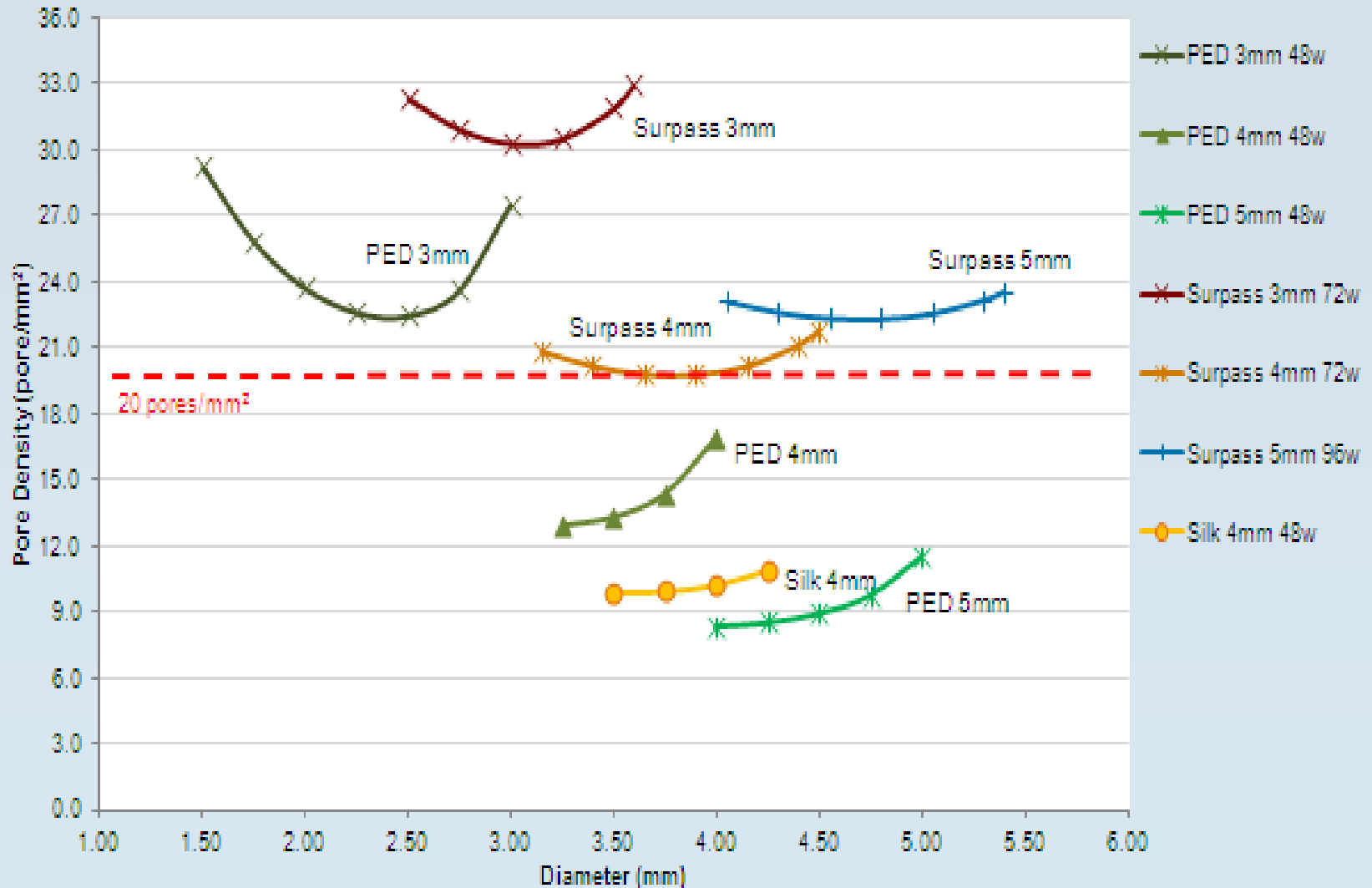


Schematic showing equal porosity (50%) but different mesh densities. Diagram A has 16 times higher mesh density than diagram B.





Comparative Mesh Densities



Surpass™ Flow Diverter System

The Surpass delivery system is designed for consistent deployment while allowing the physician to maintain wire access

DELIVERY SYSTEM



DETAIL A



Product characteristics

Surpass™ Flow Diverter Specifications	2	3	4	5
Maximum vessel diameter (mm)	2.5	3.5	4.4	5.3
Recommended minimum (mm)	2.0	2.5	3.4	4.3
Number of total wires	48	72	72	96
Wire diameter (µm)	25	32		
Number of marker wires	12			
Braided wire material	Cobalt chromium alloy			
Marker wire material	92% platinum 8% tungsten			
Mesh density (pores/mm ²)	20–32			
Delivery System	2	3	4	5
French size (proximal/distal)	3.7/3.3	3.9/3.7		
Minimum recommended microcatheter ID (in)	0.057			
Working length (cm)	150	135		

- 200 patients with 252 aneurysms from three centers who received treatment using 215 devices, from January 2013 through March 2015
 - Queen's University Hospital. LONDON
 - Hospital Clinic. BARCELONA
 - Hacettepe University Hospitals. ANKARA

Patients

Patients	200
Aneurysms	252
Females (%)	152
Mean Age yrs (range)	55 (24-82)
Presentation/Indications for Treatment	%
Incidental Finding/Headaches	72
Recurrent after Coiling/Coiling and Stenting	50
Cranial Nerve Deficit/Mass Effect	22
Associated Second Ruptured Aneurysm	24
Subarachnoid Hemorrhage (SAH)	24
Recurrent after Clipping/Failed Clipping	4
Acute large vessel dissection (Cervical ICA)	4

Aneurysms

Total Aneurysms Treated	252
<5mm	66
5mm to 9.9mm	106
10mm to 20mm	52
>20mm	28
Measurements (mean)	
Aneurysm Dome Size (mm)	9.8
Aneurysm Neck Size (mm)	4.8
Dome : Neck Ratio	3.6
Morphology	(%)
Saccular	72(182)
Fusiform / Dissecting	28 (70)

Technical Assessment & Follow-Up

Follow-Up

- N=184 of 200 patients had an imaging FU, from 1 day to 12 months (mean 8 months)
- Technical Difficulty (Operative)
- Clinical Assessment (Postoperative increase in mRs)
- Imaging FU (DSA/ MRA/ CT-DSA) : 89% of cases with FU showed 90-100% aneurysm sac occlusion and segmental remodeling on FU imaging

Technical Data	
Average Access/ Stent delivery time (min.)	48/12
Technical Success	100 (95%)
Incorrect Placement w/ partial Aneurysm Coverage	4
Intraoperative Thrombus Formation	1
Average Number Devices Per Aneurysm	0.84
Average Number Devices Per Patient	1.07
In-implant Stenosis (Asx/Sx)	15/1
Parent Artery Occlusion (Asx/Sx)	2/1
Aneurysmal Bleed	0/0
Parenchymal Bleed – not related to Aneurysm	2 /2

Clinical Results

- **COMPLICATIONS**

Aneurysm Location	Thromboembolic	Bleeding	Death	TOTAL
Anterior Circulation	3	2	2	5
Posterior Circulation	2	0	1	3

Clinical Results

mRS	Frequency (# patients)	Location	Post-procedural Detail, Description and mRS at FU.
1	N=3	<ol style="list-style-type: none"> 1. Posterior C. 2. Poerior C. 3. Posterior C. 	<ol style="list-style-type: none"> 1. PICA from an Intersegmental Artery. Brain stem bright focus on DWI. Reversed once patient restarted his medications. mRS-1 back to 0 2. Recurrent Basillary Tip. Mild R-sided weakness 10 days after procedure. Brain stem focus on DWI. Reversed in 3 hours. mRS-1 back to 0 3. Recurrent Basillary Tip aneurysm. Mild weakness on the left side 5 months after procedure for two hours. No DWI lesion. mRS-1 back to 0
4	N=1	<ol style="list-style-type: none"> 1. Anterior C. 	<ol style="list-style-type: none"> 1. Carotid ophthalmic aneurysm. Developed contralateral wekness an hour after procedure. Subtotal closure of the stent. Hemispheric stroke. Anterior Choroidal Arter stroke in large ophthalmic A. UE monoparesis at 3 month FU. mRS-4
6	N=3	<ol style="list-style-type: none"> 1. Anterior C. 2. Anterior C. 3. Posterior 	<ol style="list-style-type: none"> 1. Grade V SAH, massive global spasm 3 days after treatment. Stent still patent, stroke and subsequent expiration 5 days after treatment in patient w/ dissected M2 segment A. mRS-6 2. Patient w/ Petrous ICA aneurysm. Cerebellar Parenchymal Hemorrhage 3 months after operation . Patient expired following decompressive surgery. mRS-6 3. GradeV SAH, Lateral Basiary trunk aneurysm, Severe vasospasm and hydrocephalus. mRS-6

- PROS

- DISTAL WIRE

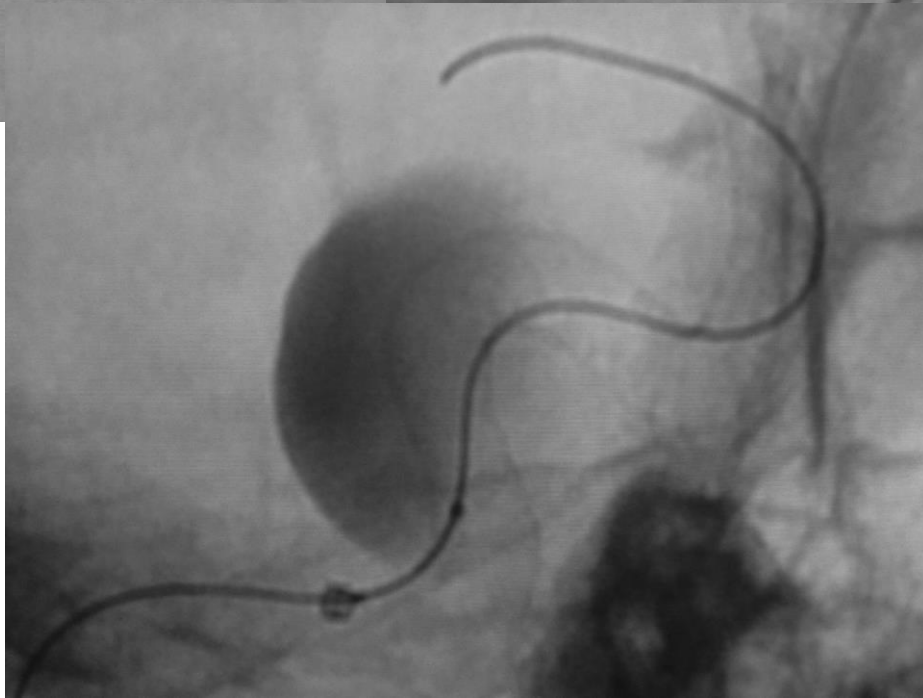
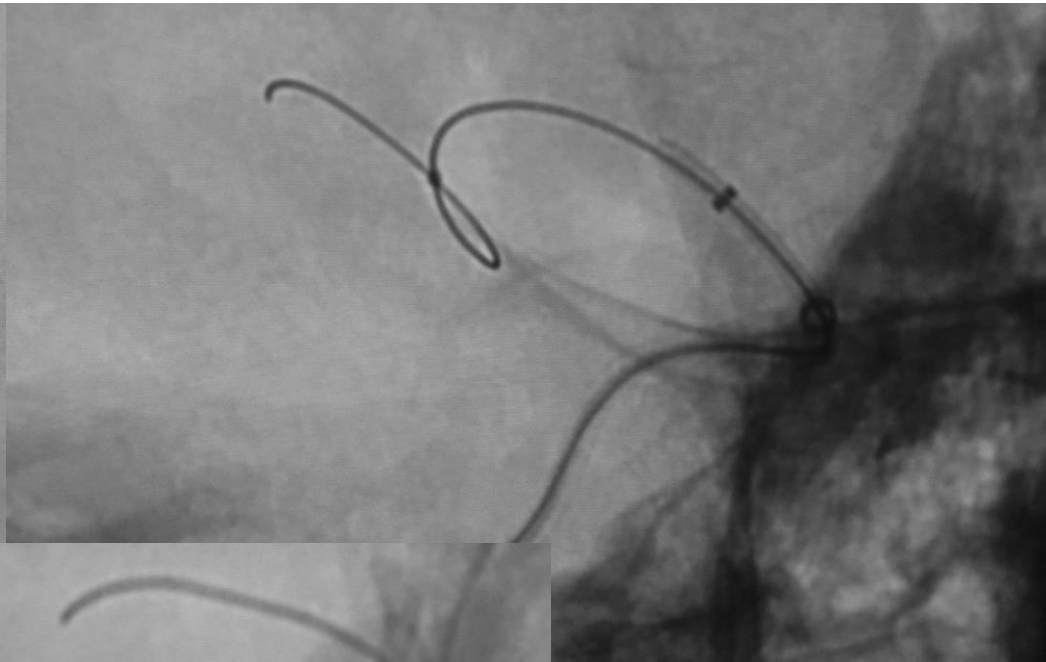
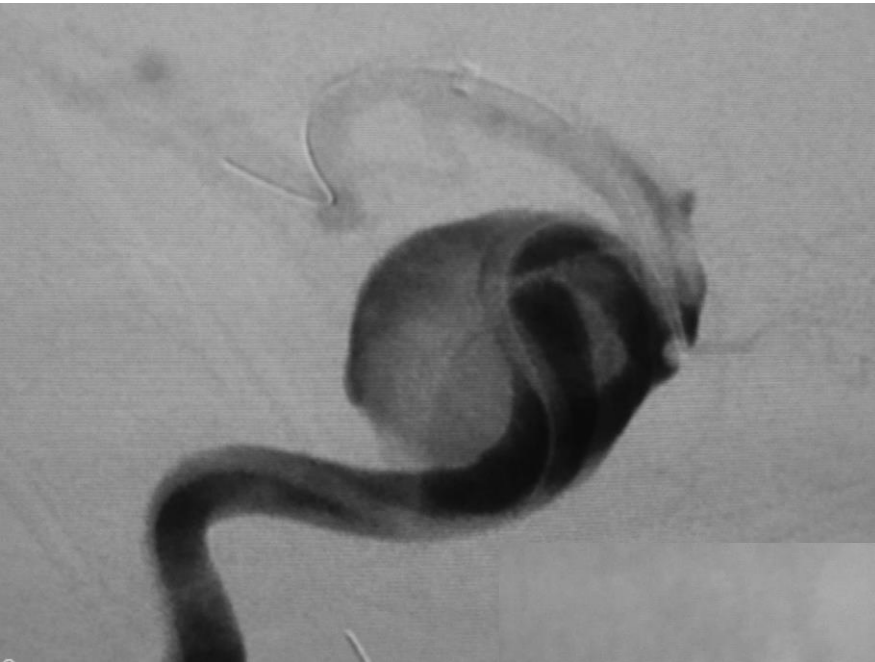
- HIGH SUPPORT ARCHITECTURE

- HIGHER MESH DENSITY

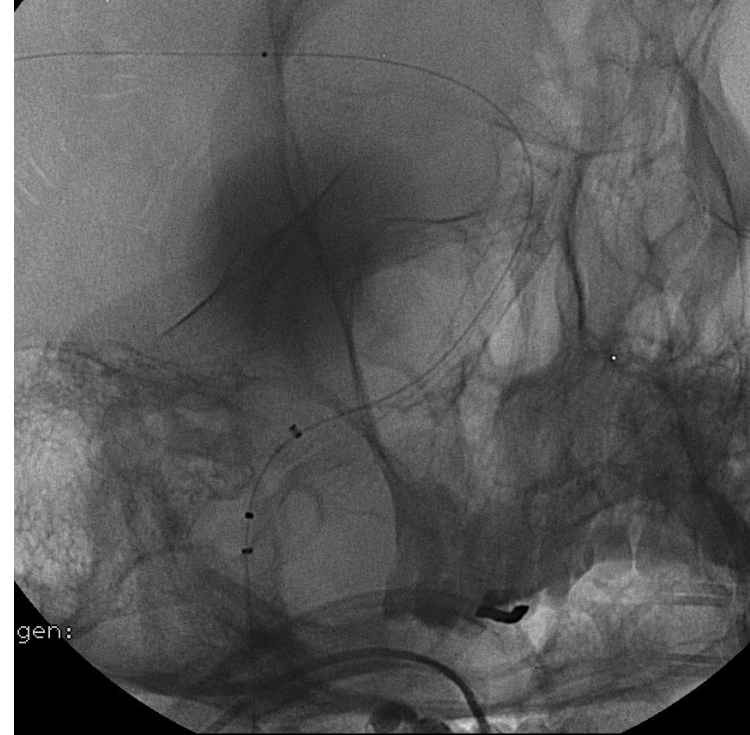
- WALL APPPOSITION IN THE COURVES

- LONGER DEVICES

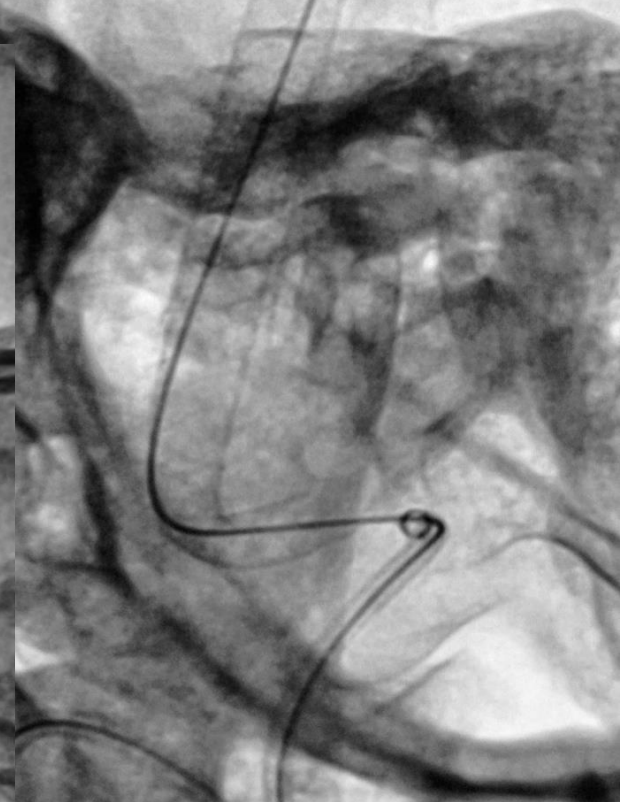
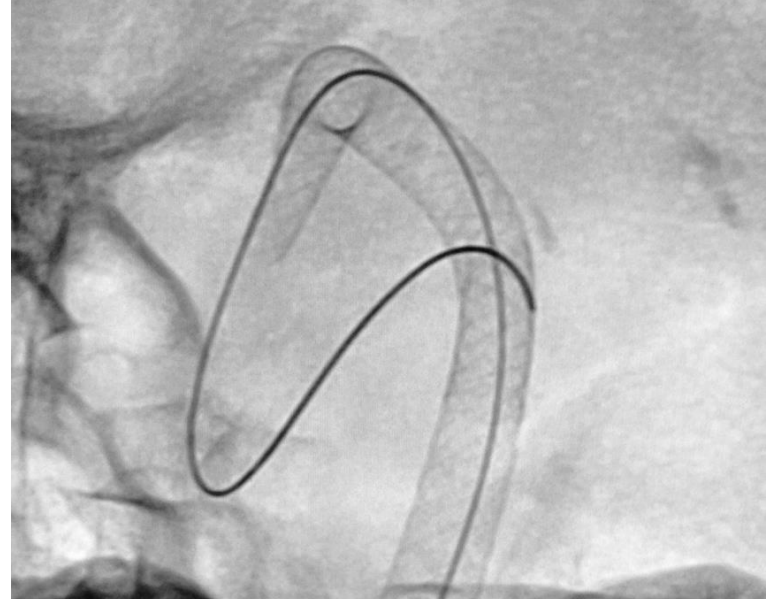
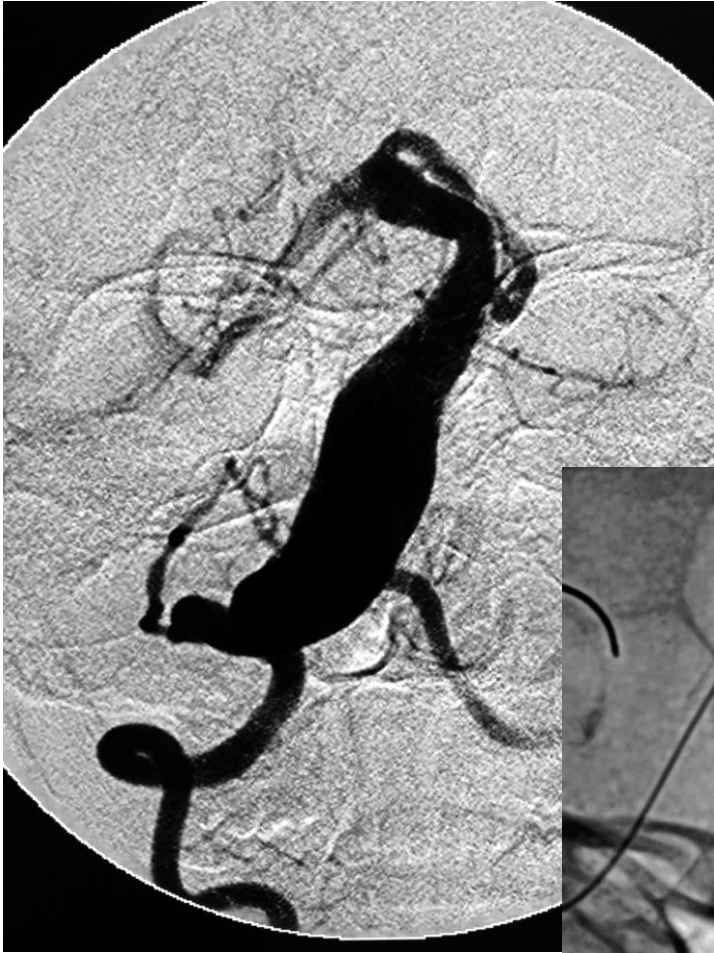
DISTAL WIRE

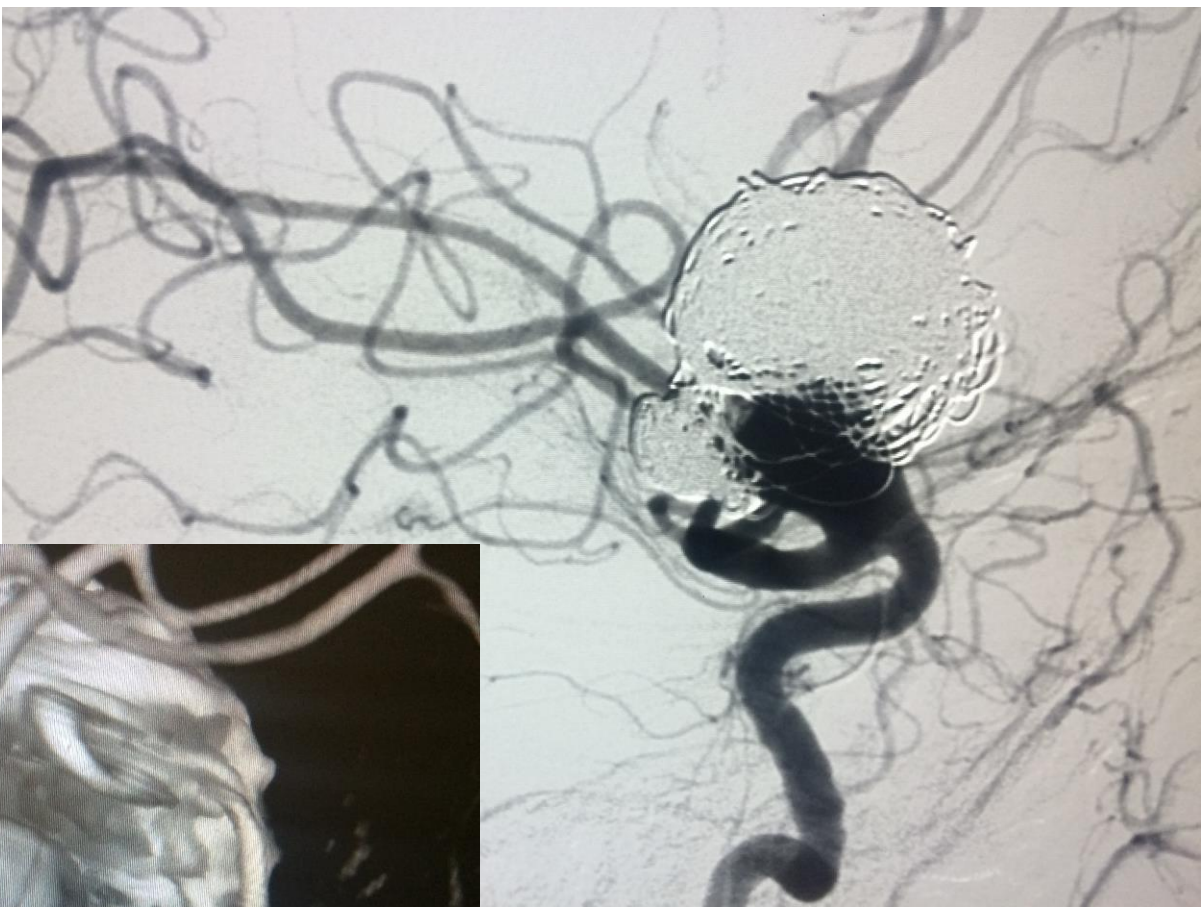


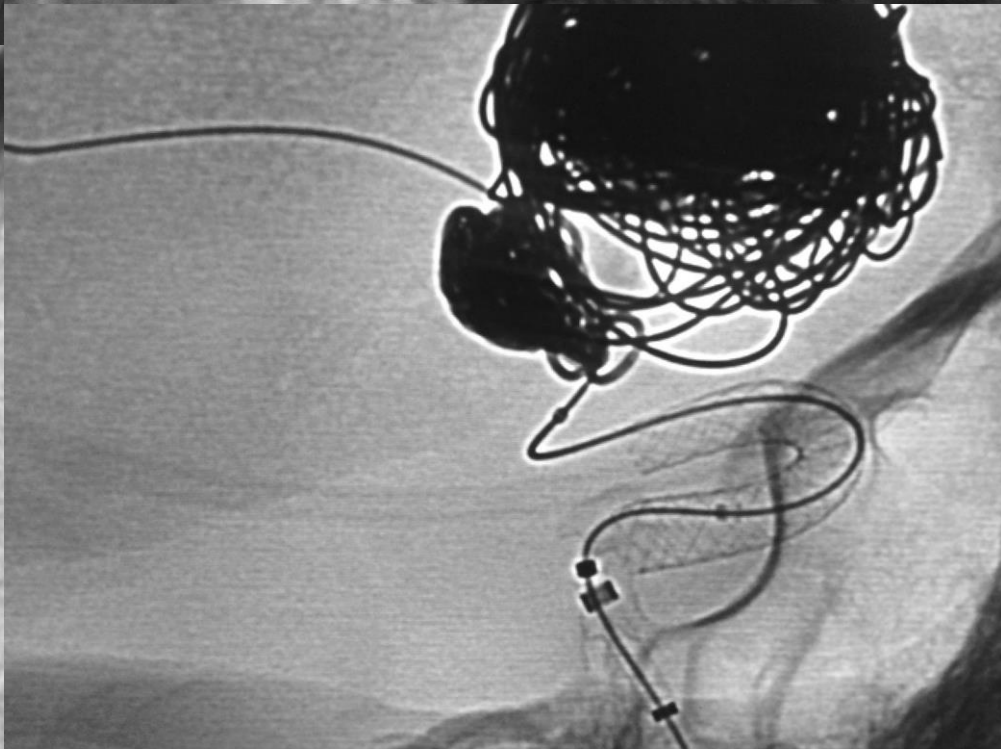
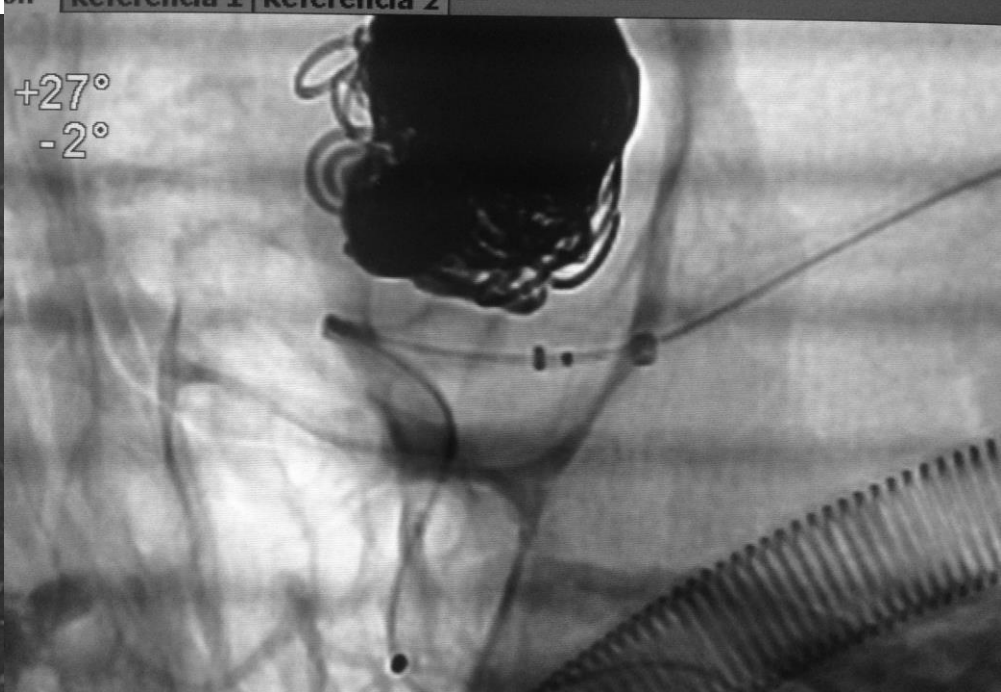
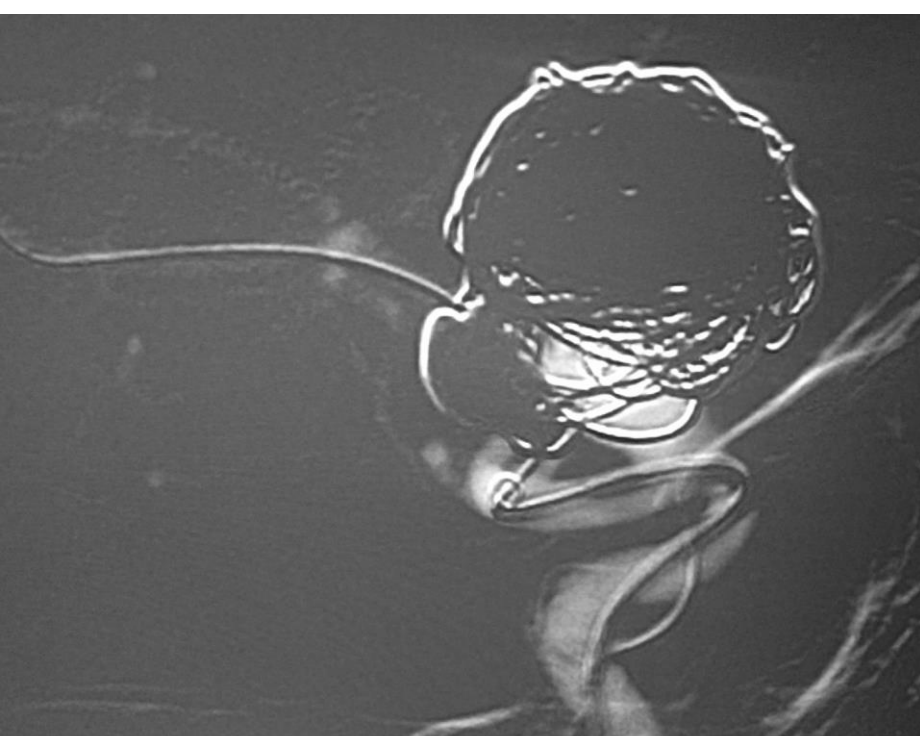
DISTAL WIRE



DISTAL WIRE

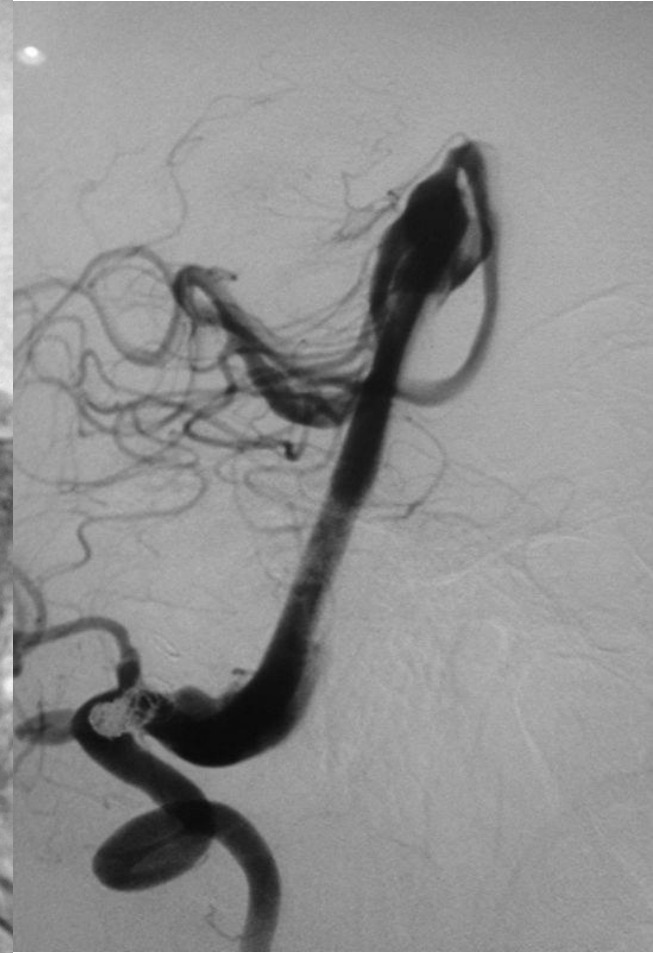
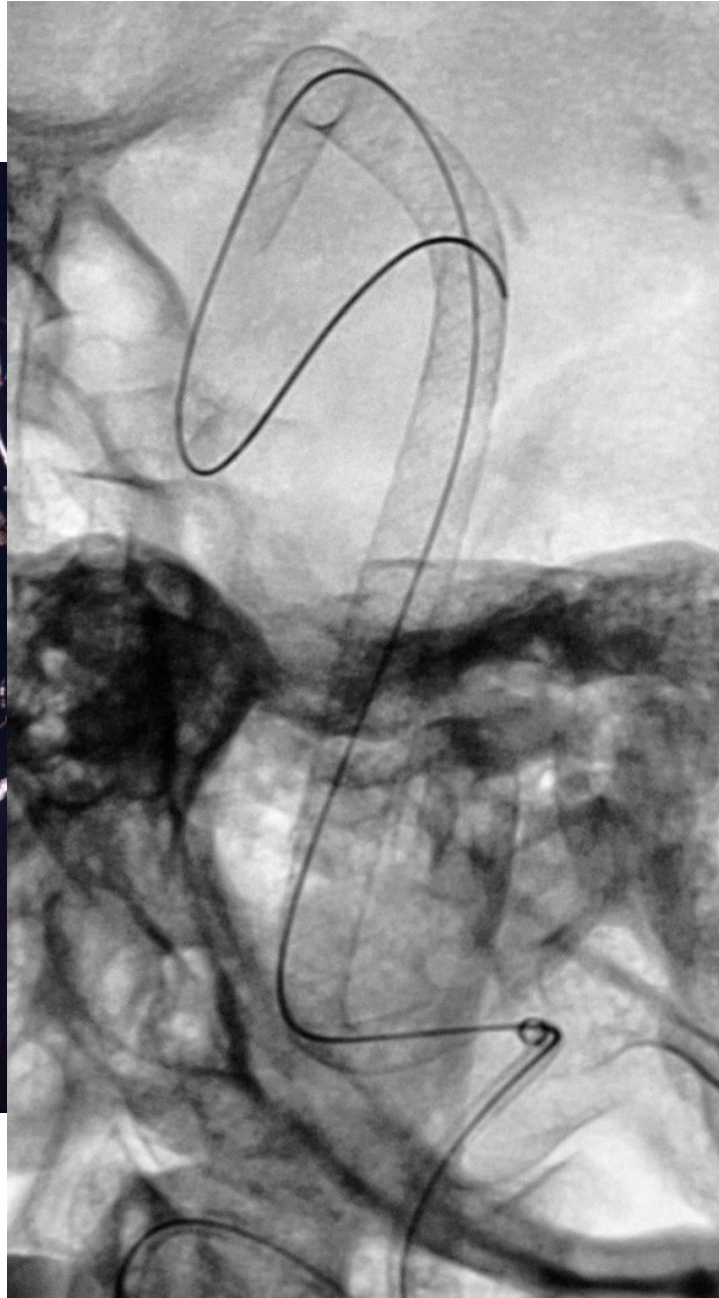




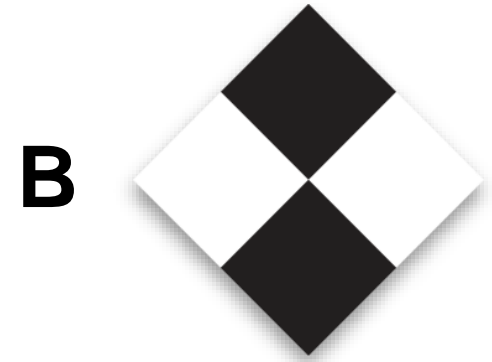
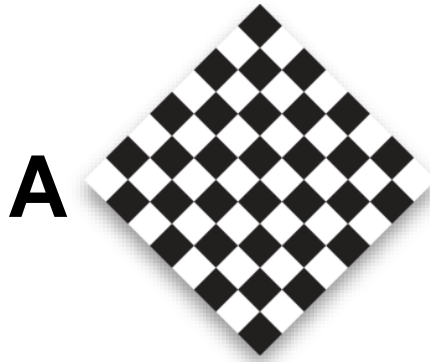




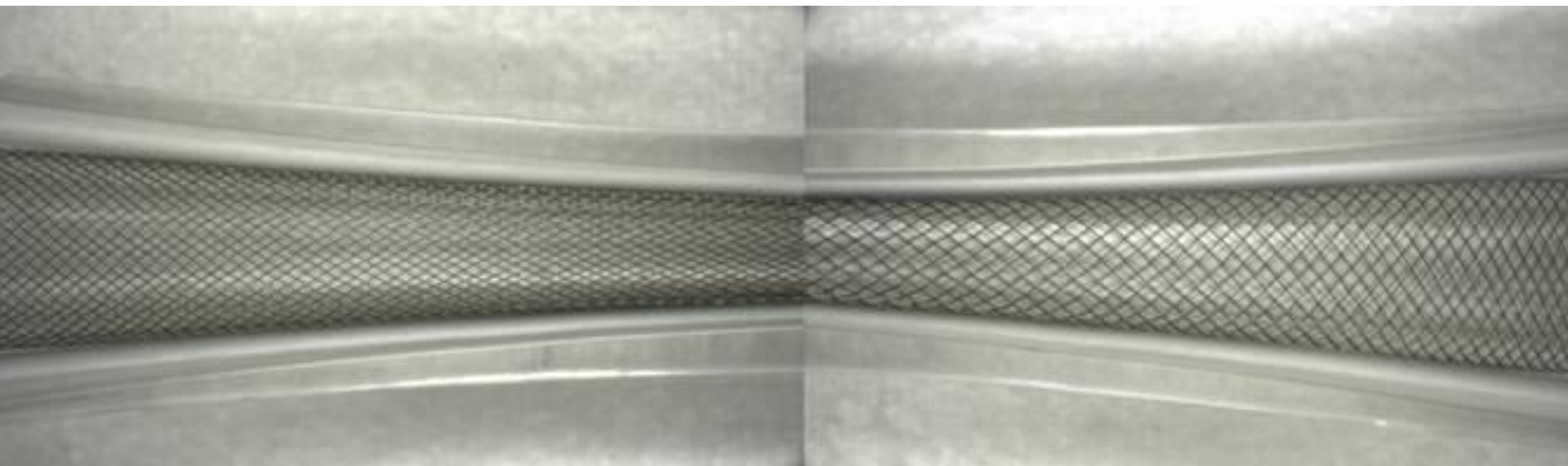
HIGH SUPPORT ARCHITECTURE



HIGUER MESH DENSITY



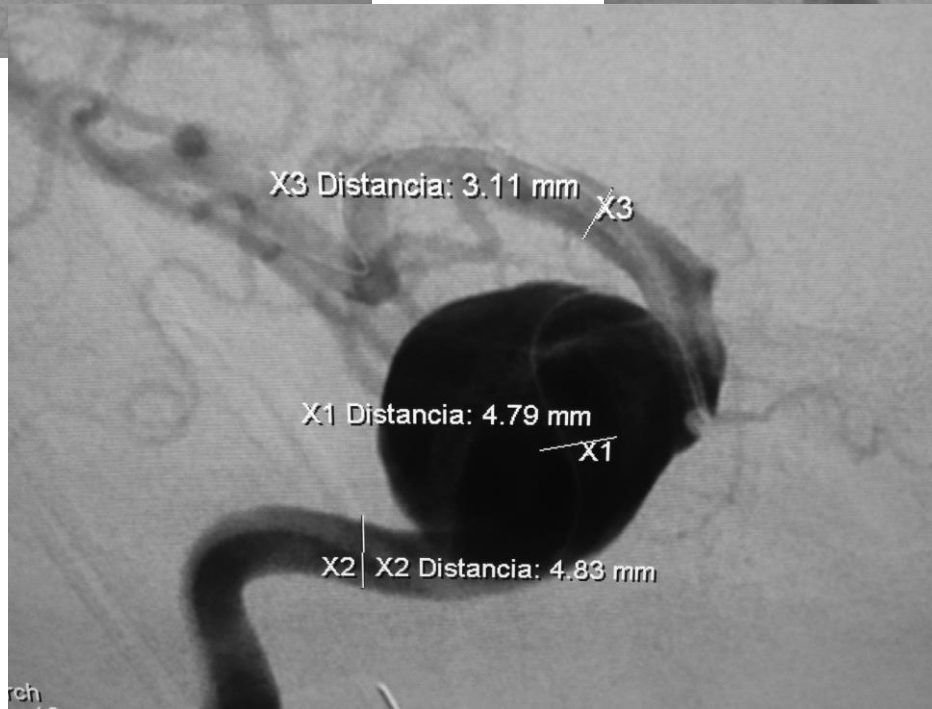
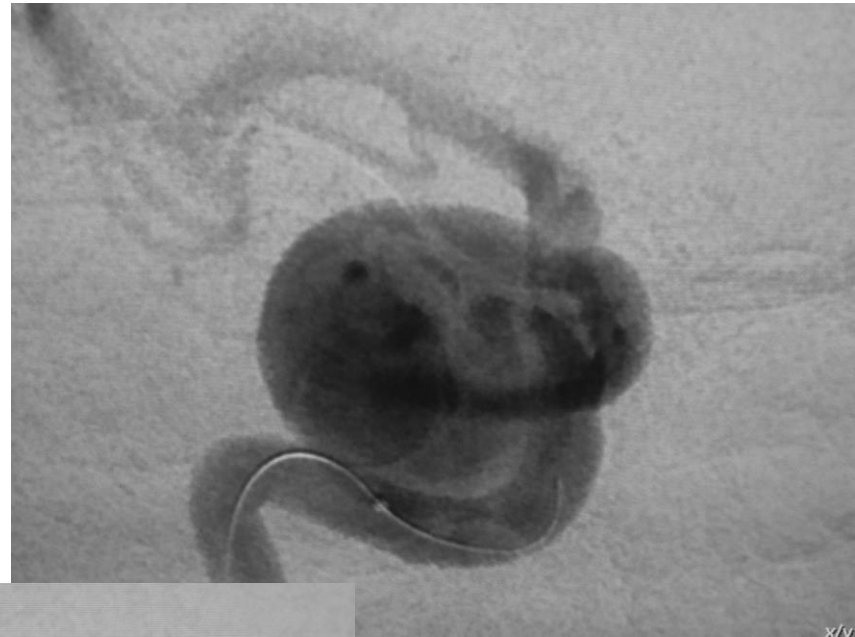
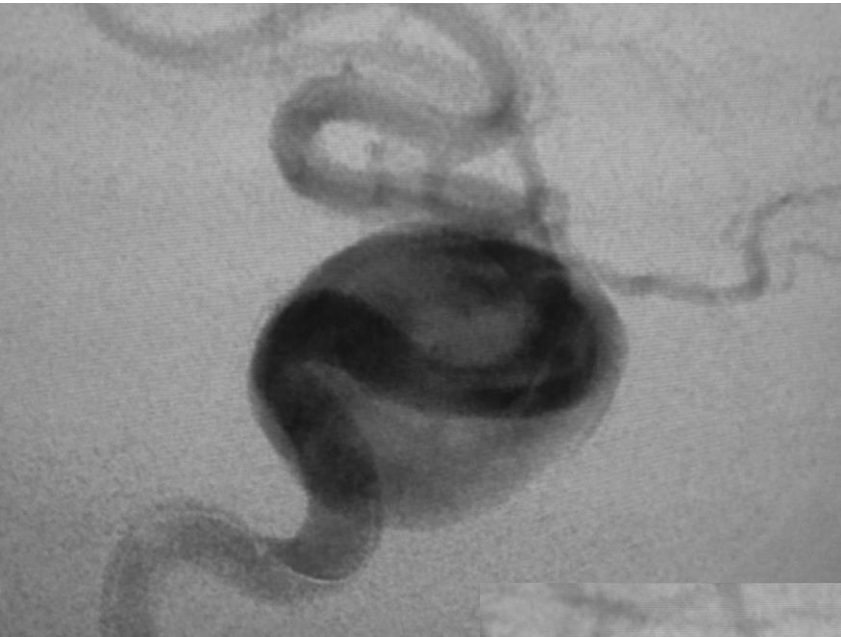
Schematic showing equal porosity (50%) but different mesh densities.
Diagram A has 16 times higher mesh density than diagram B.

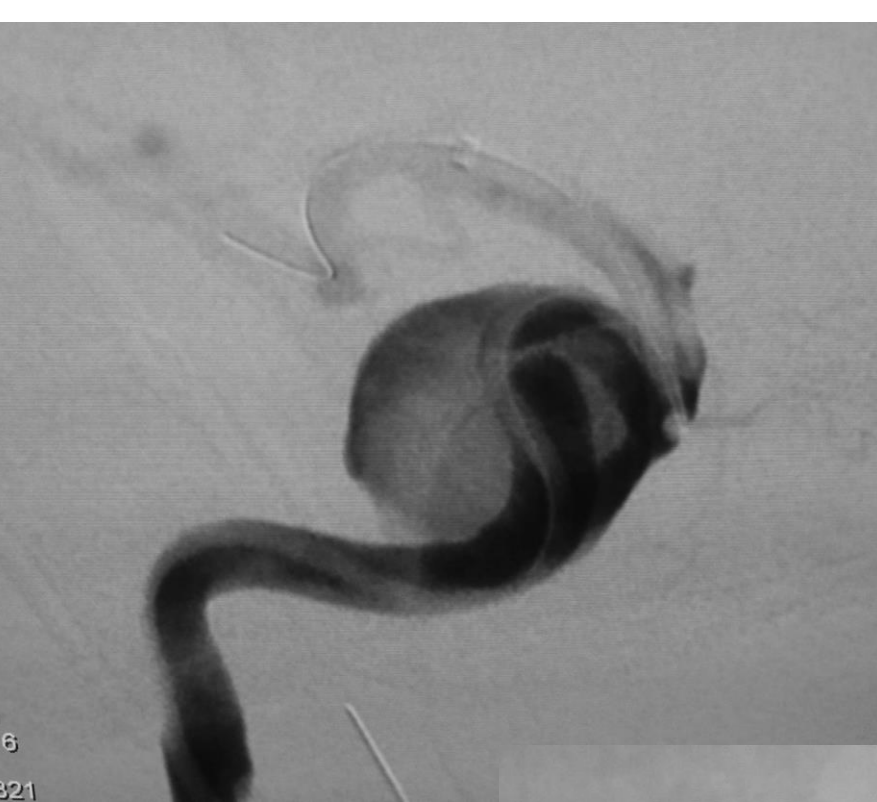


Case 40 ELCHE 28/10/14

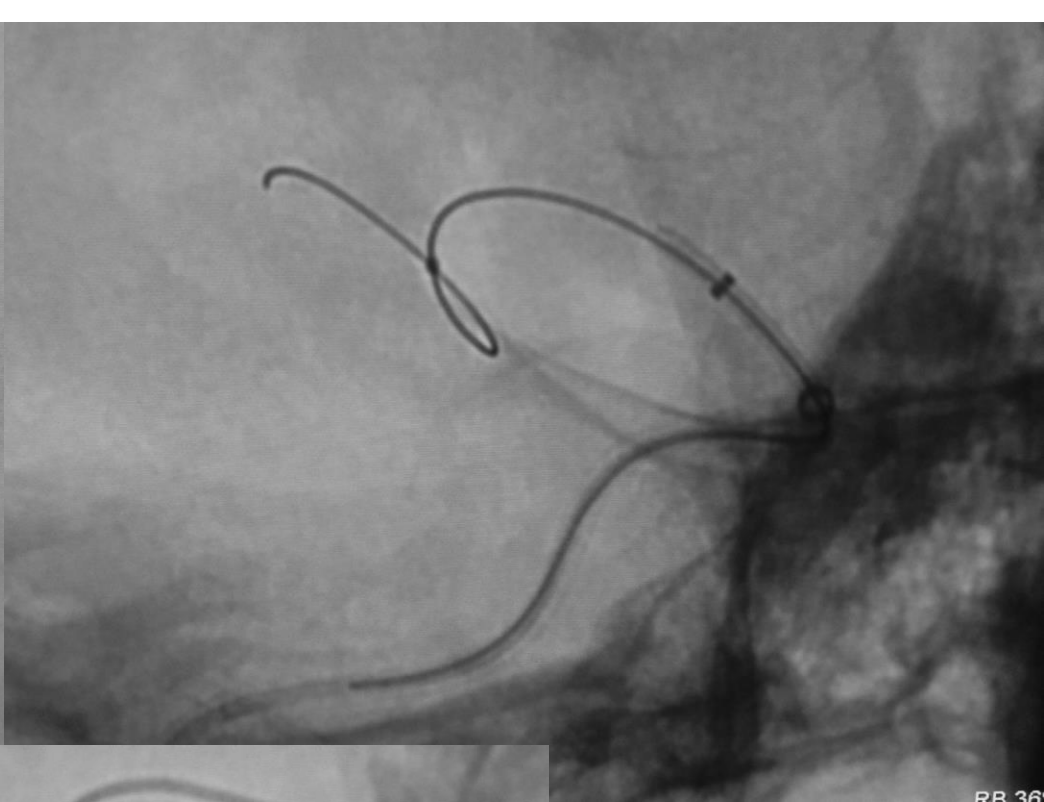
Case 40

4X40



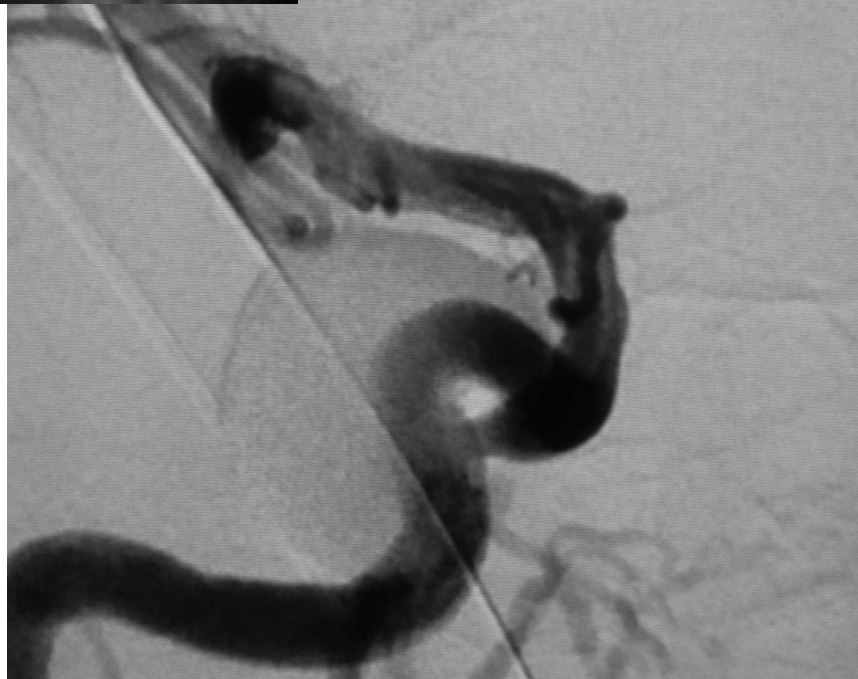
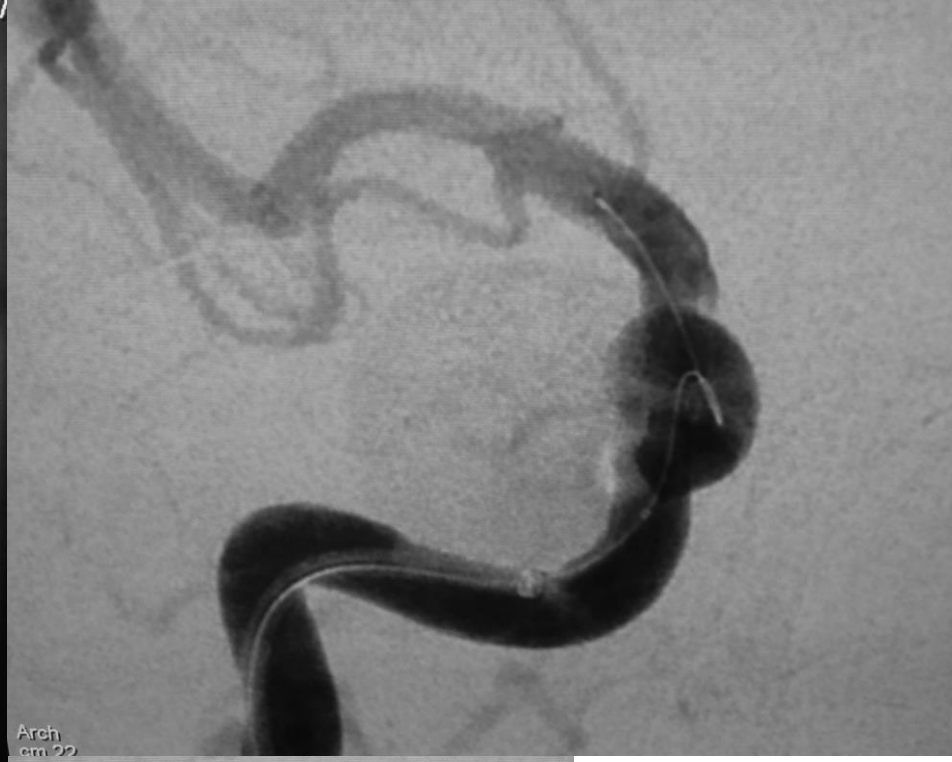
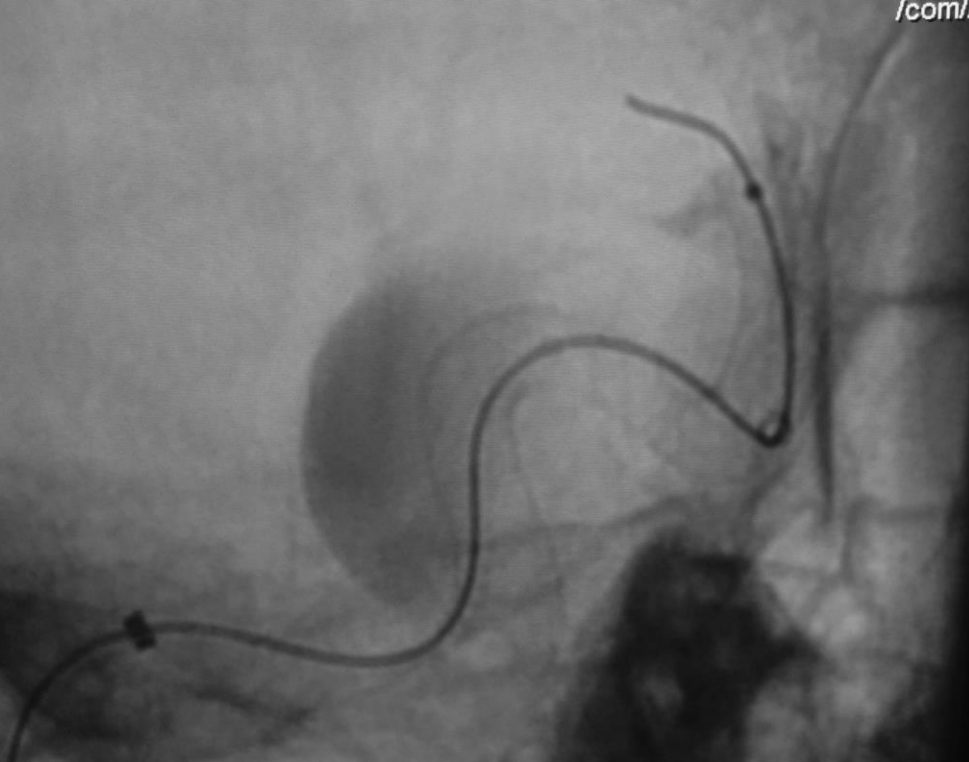


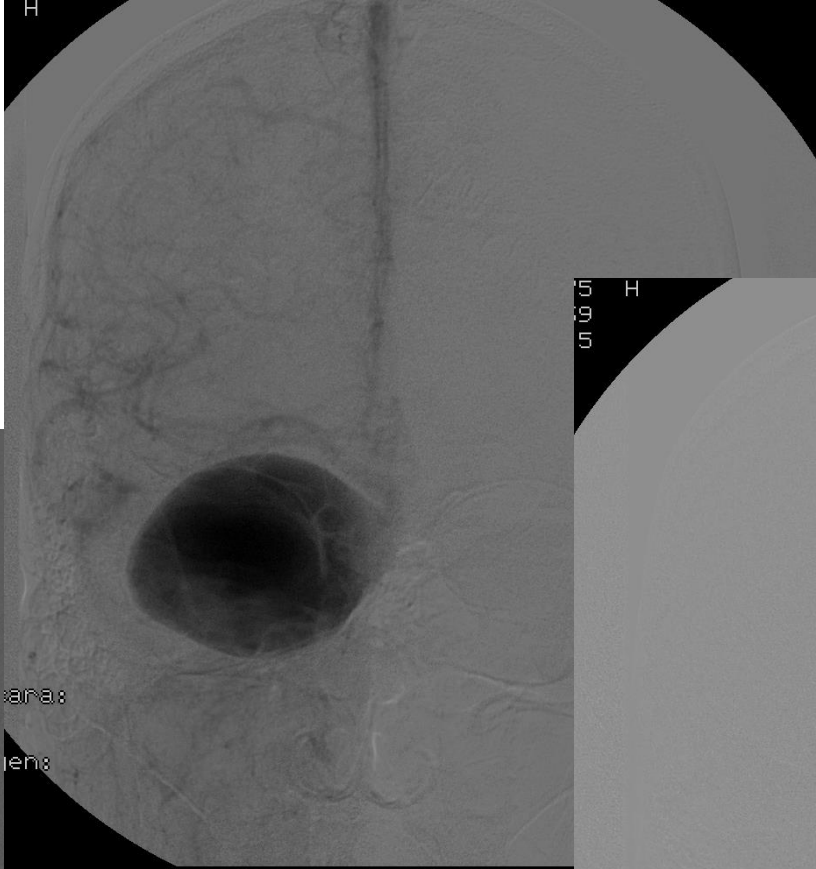
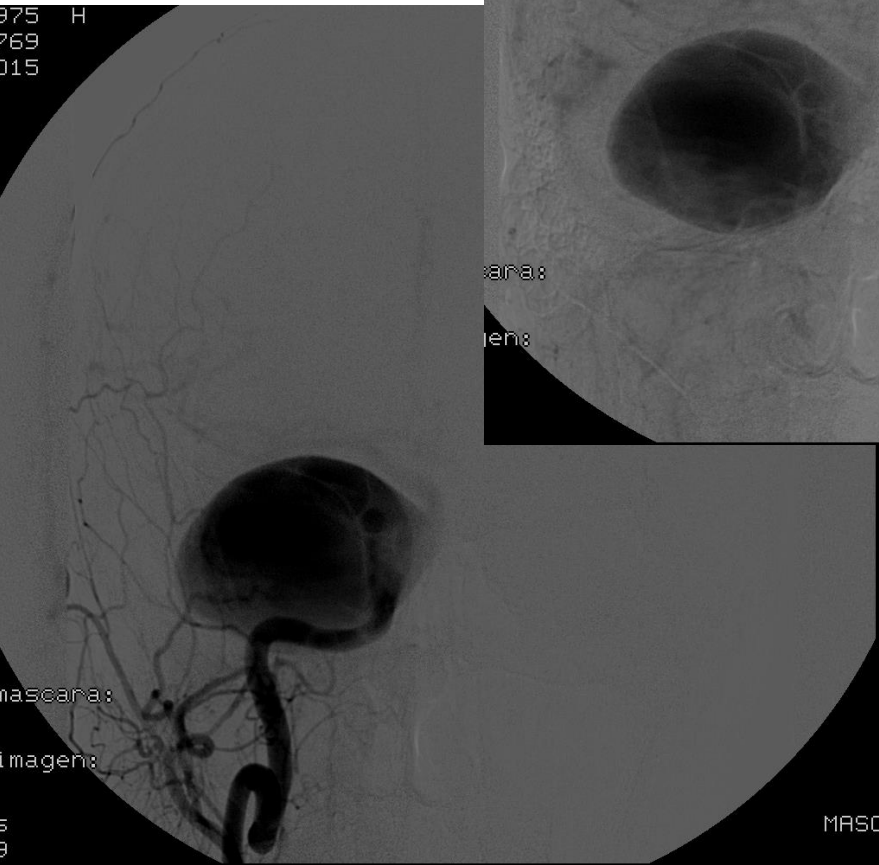
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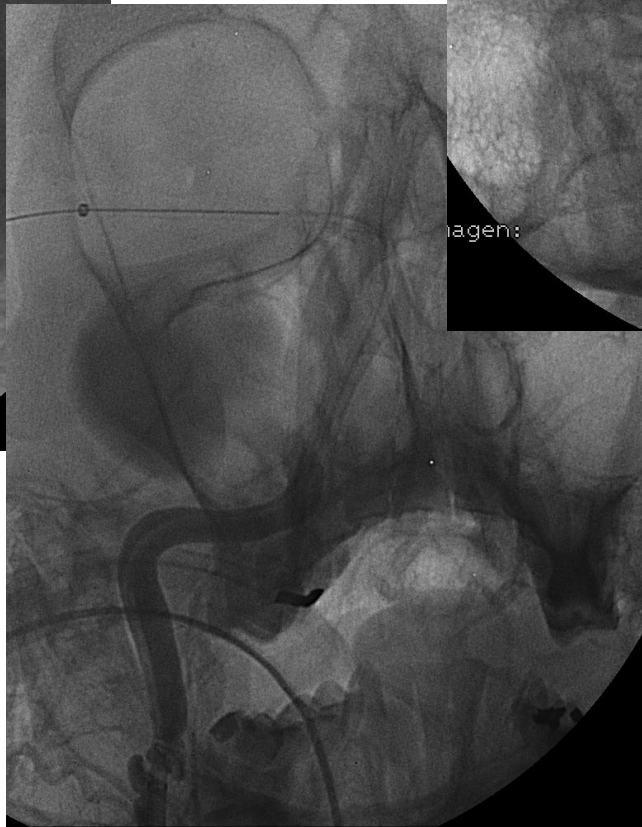
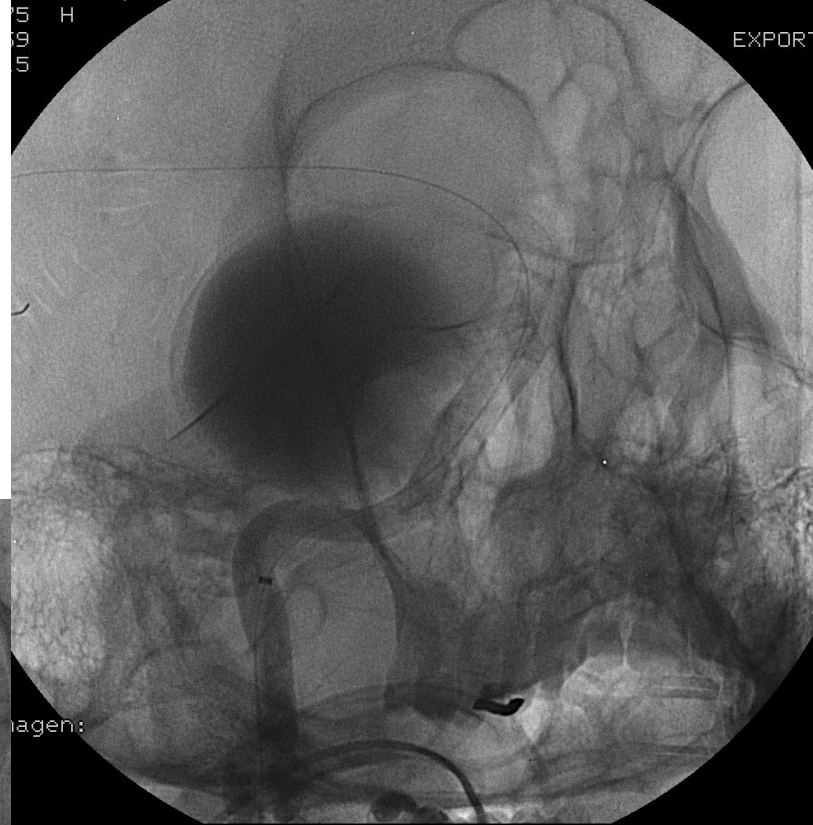
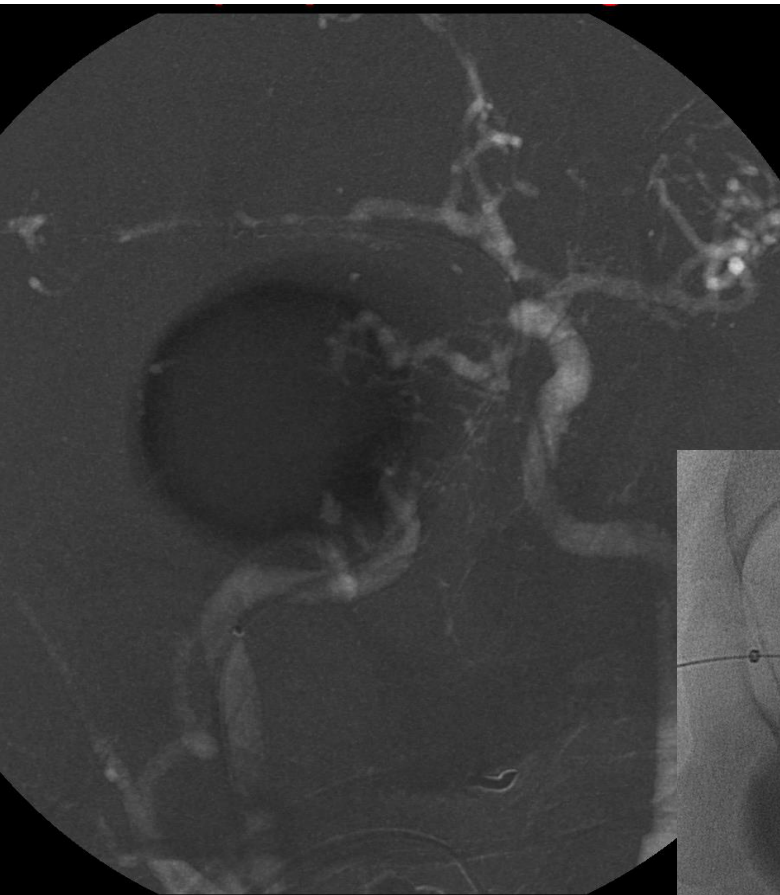


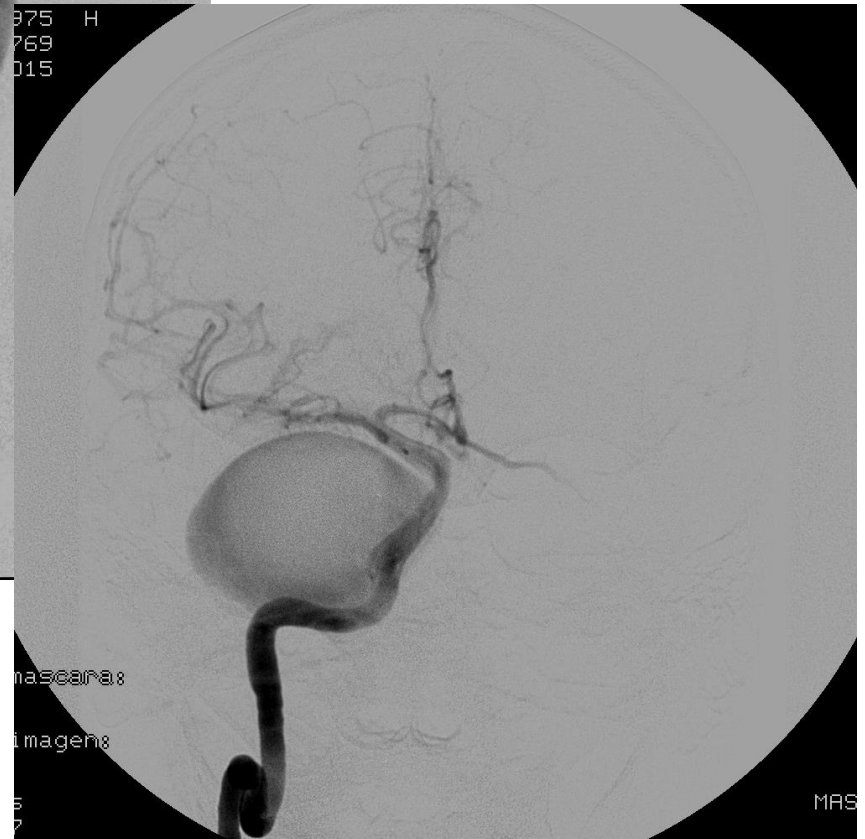
BB 36





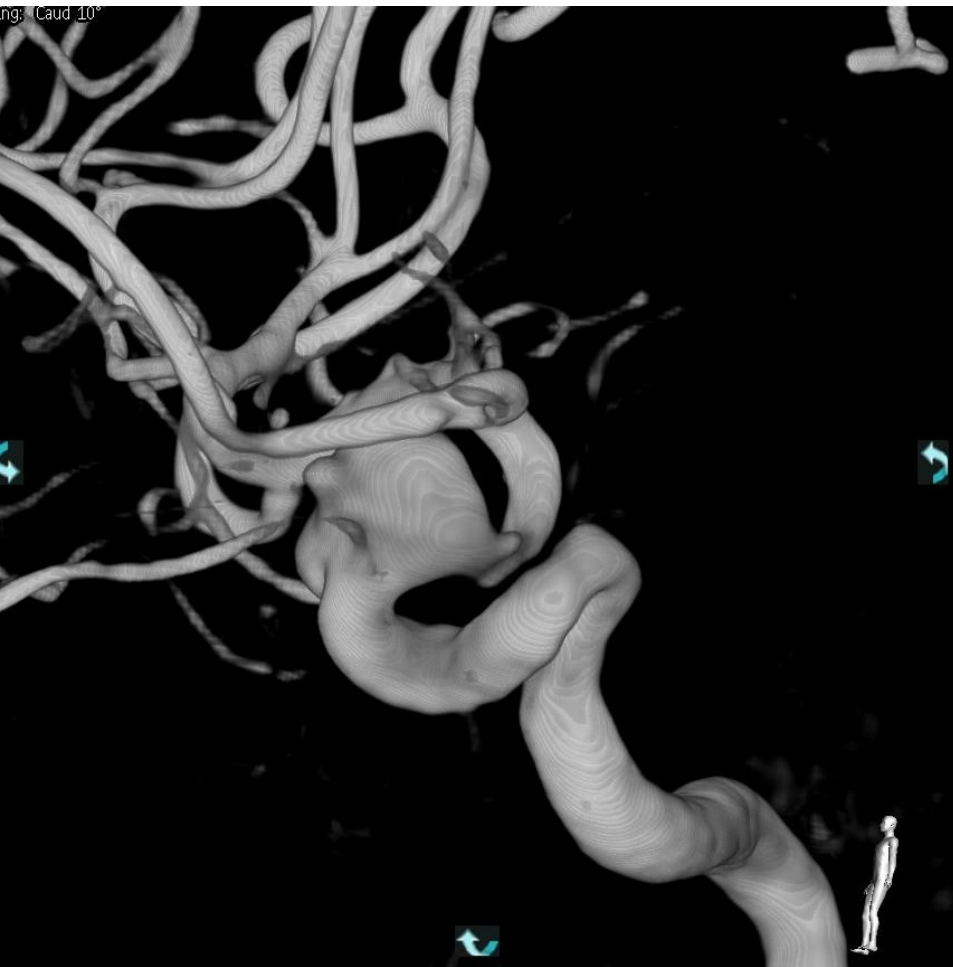






Case 4 Valencia Fe 11/12/13

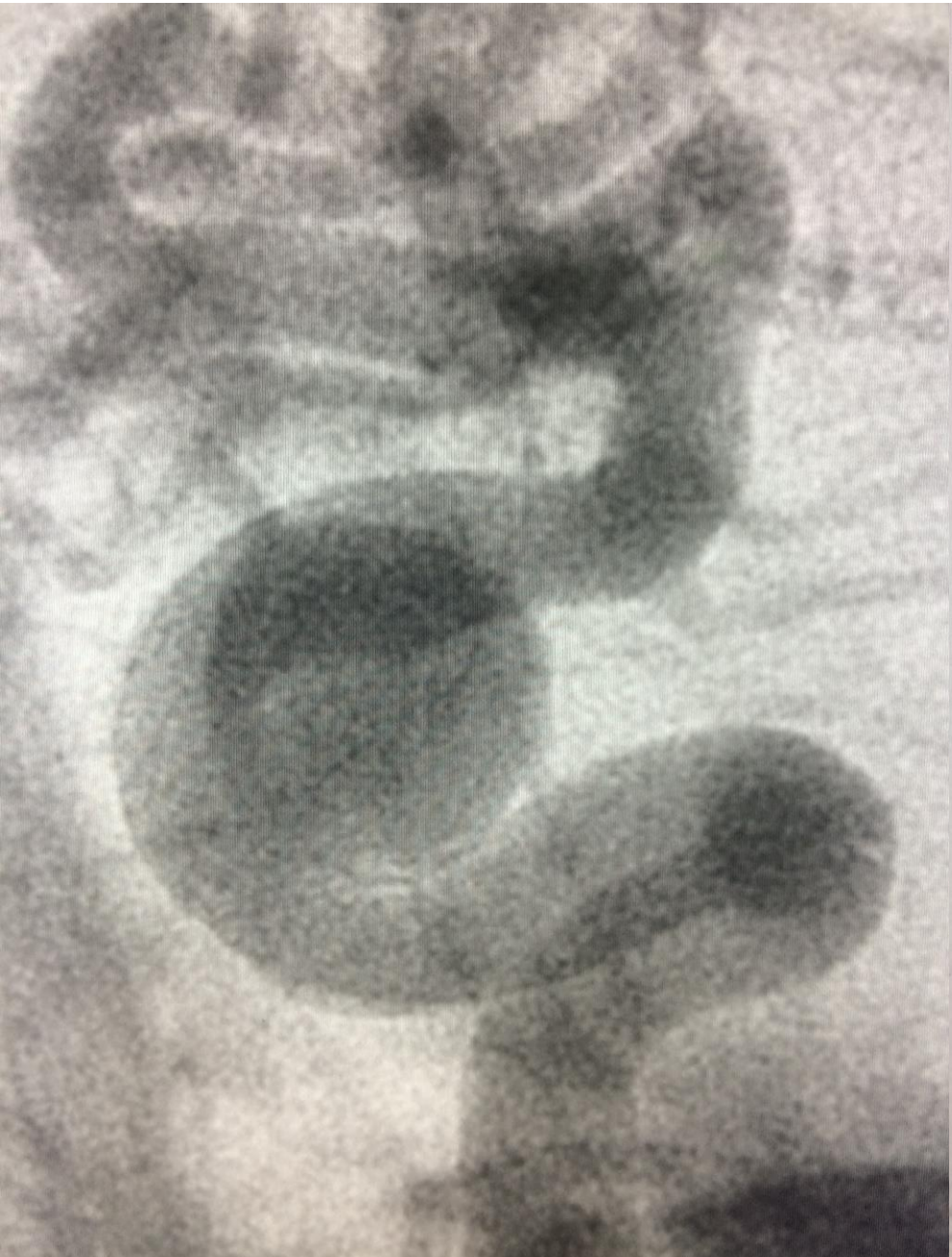
5X25



Female 44 yo, 15/4/14. Surpass 5x25

3m fu

5 m fu



Case 10 Valencia Fe 30/01/14



GARCIA LOPEZ, PILAR
Rot: LAO 118°
Ang: Cran 19°



4X20

pre



3 m fu

62 yo, female, Left VBJ Aneurysm: Surpass™ 5x30mm



62 yo, Female, Left VBJ Aneurysm: Surpass™ 5x30 mm

Pre-Operative



3 Months later

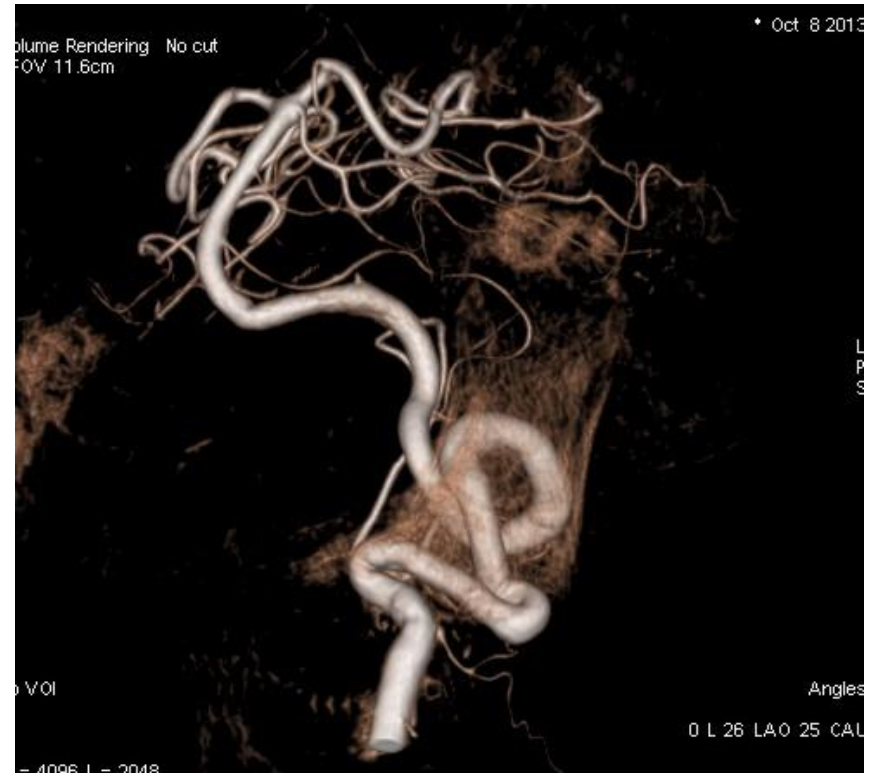


62 yo, female, Left VBJ Aneurysm: Surpass™ 5x30mm

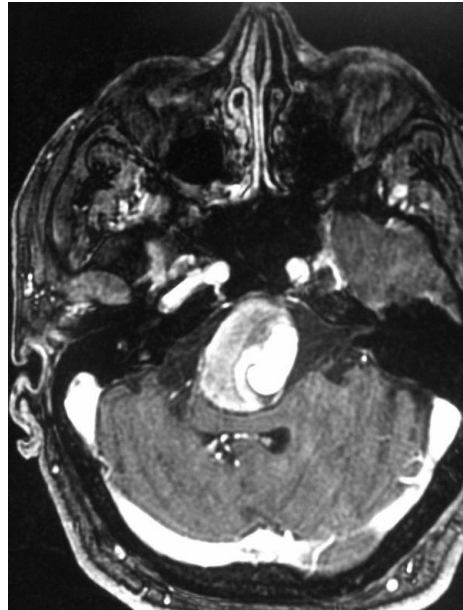
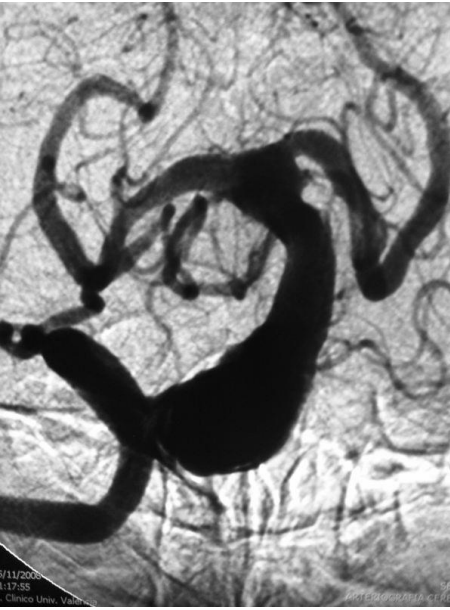
Pre-Operative



3 Months later



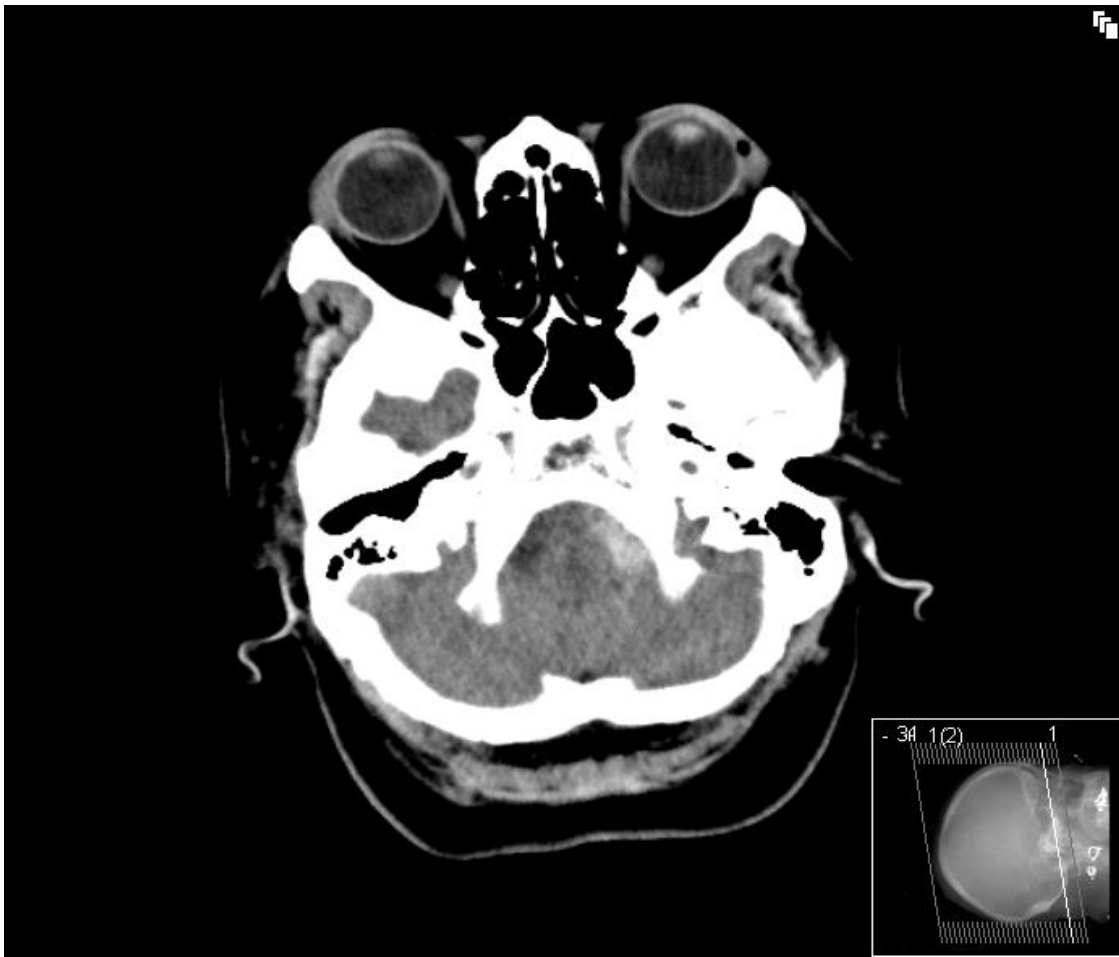
Case 9 clinico valencia 29/01/14



5X50 + 5X50

3 m fu





72 yo, female, acute SAH
Surpass™ 4x25mm



72 years of age, female, acute SAH:
Surpass™ 4x25mm

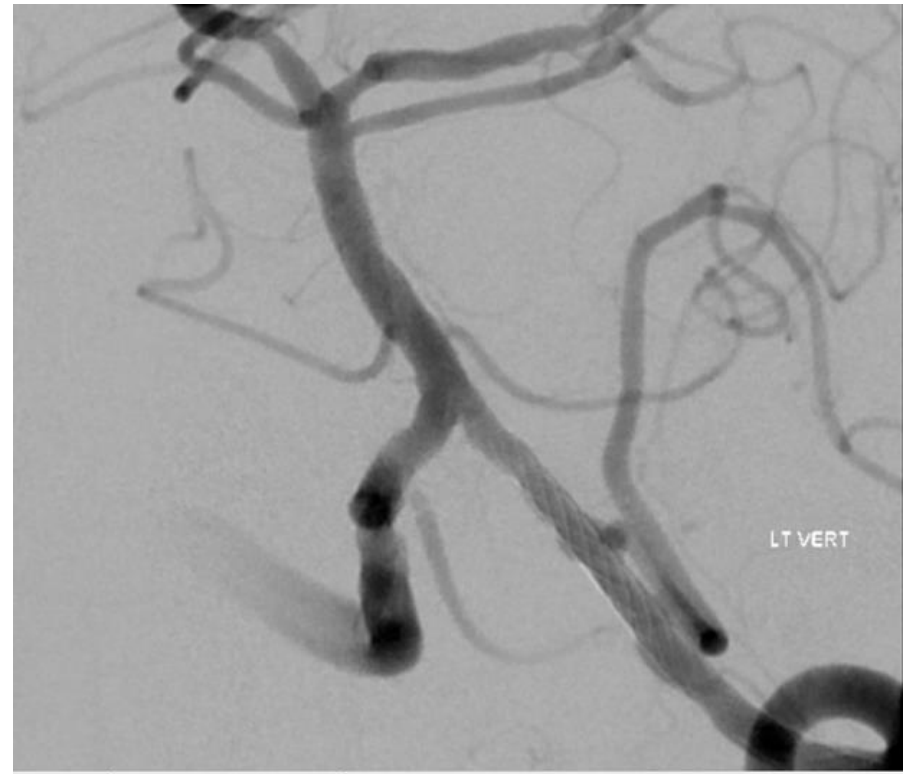


72 yo, female, acute SAH
Surpass™: 4x25 mm

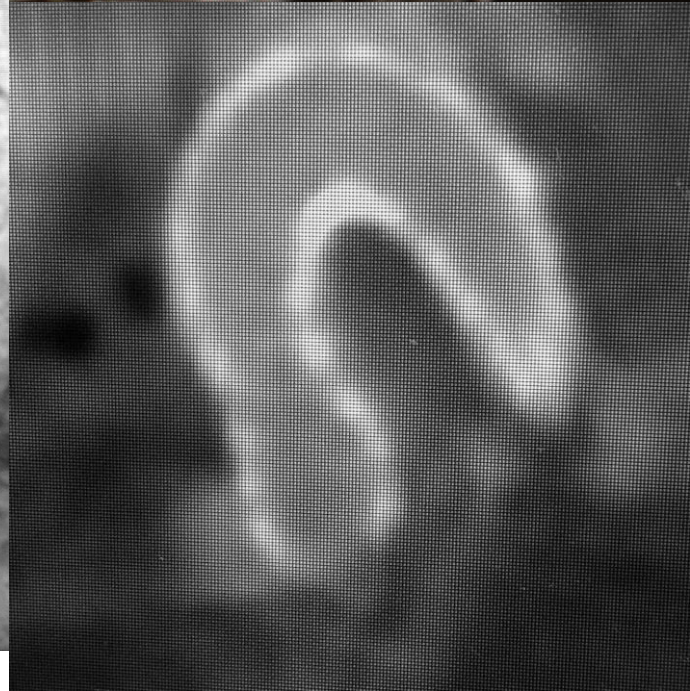
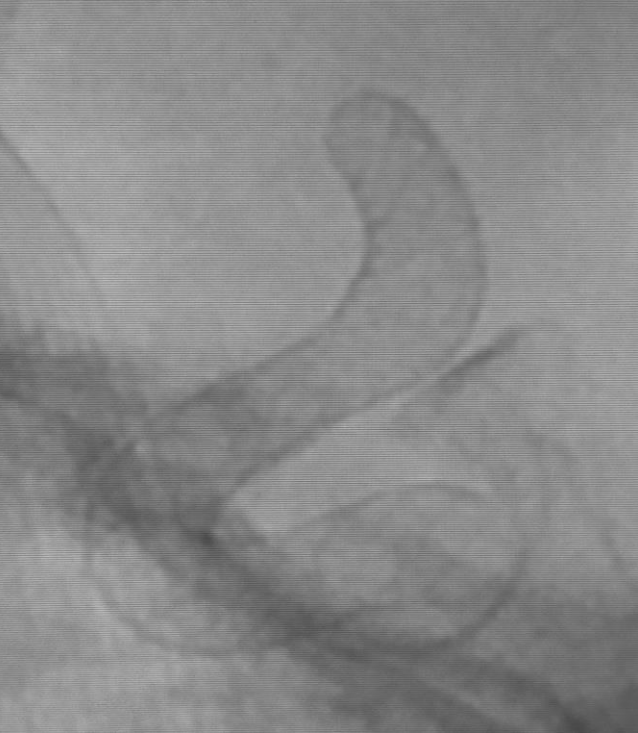
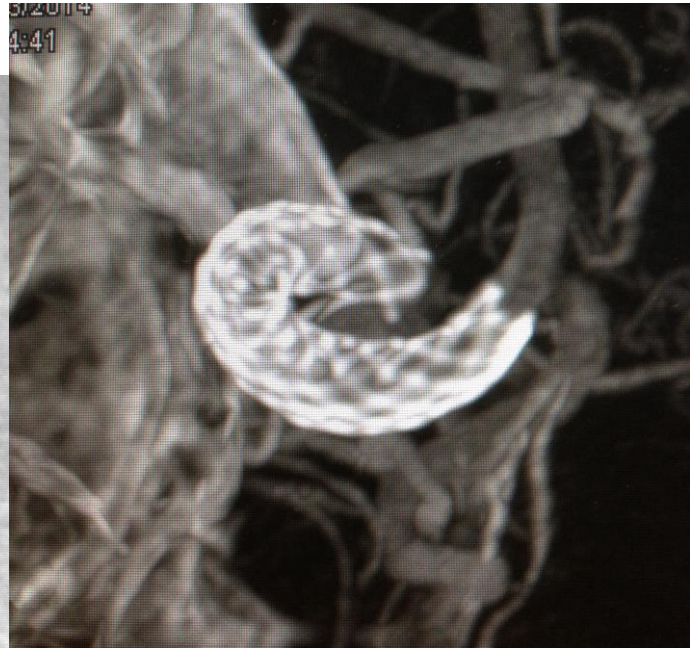
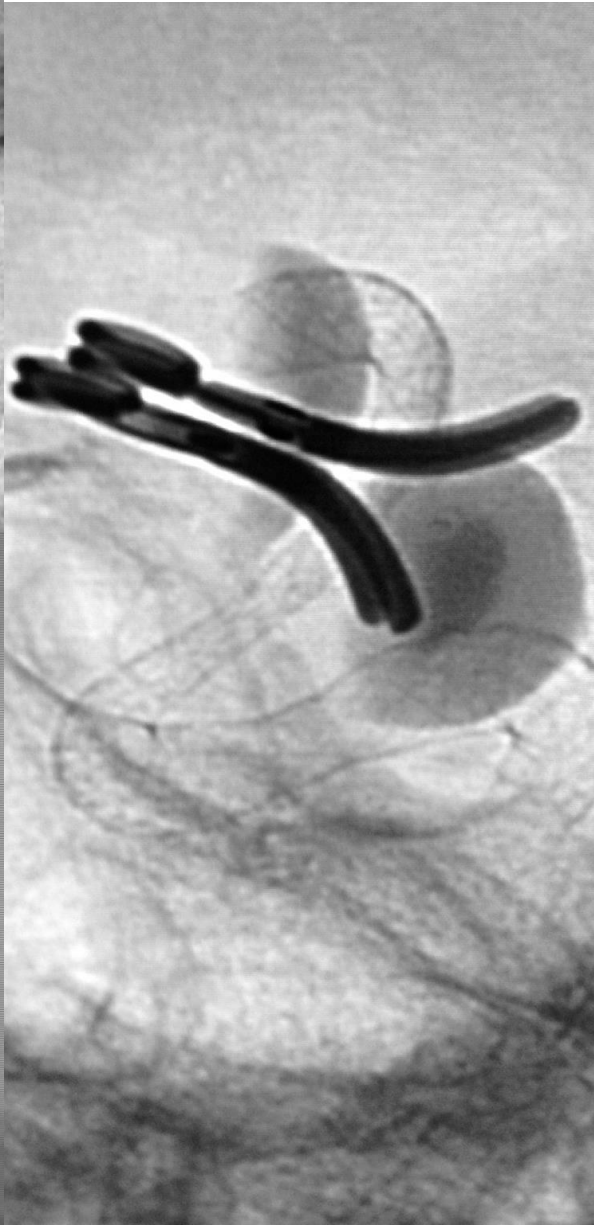
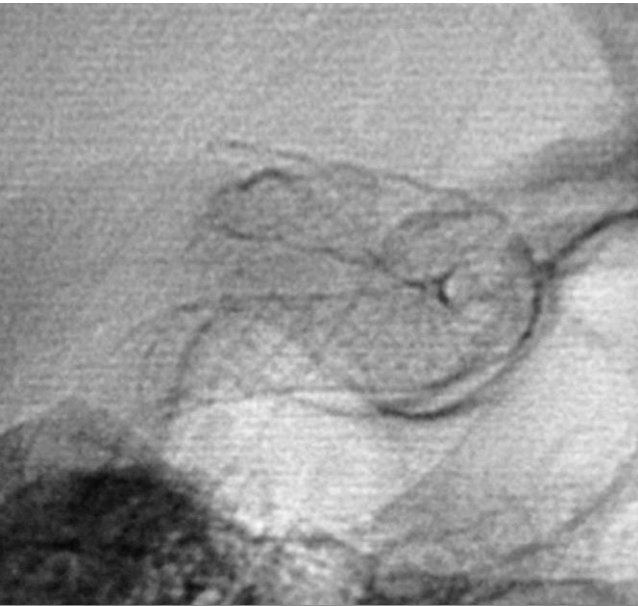
Operative



3 Months Follow Up



WALL APPPOSITION IN THE COURVES



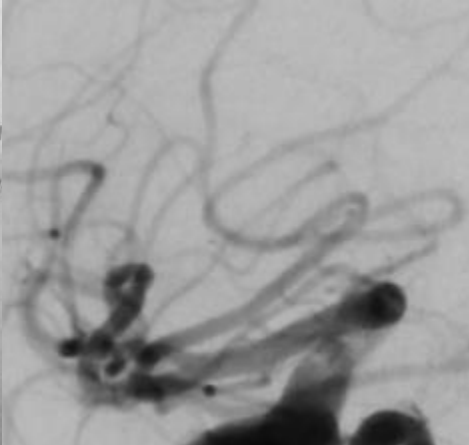
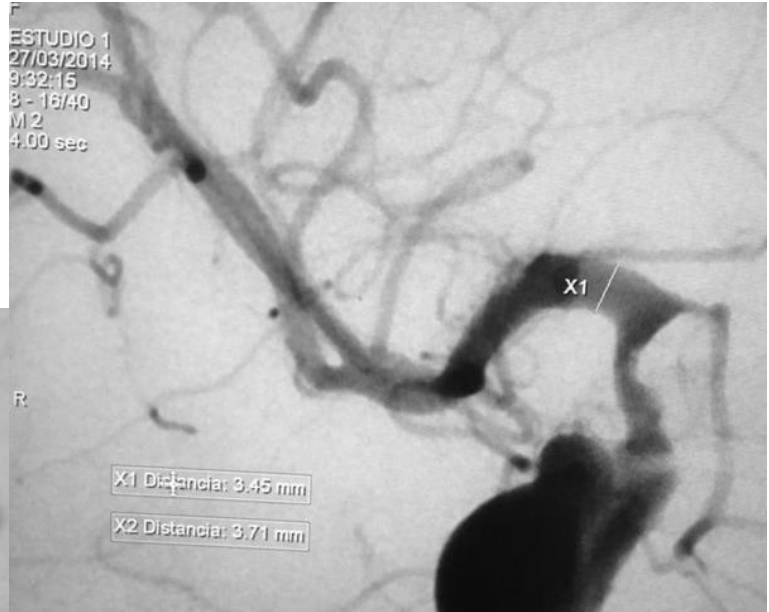
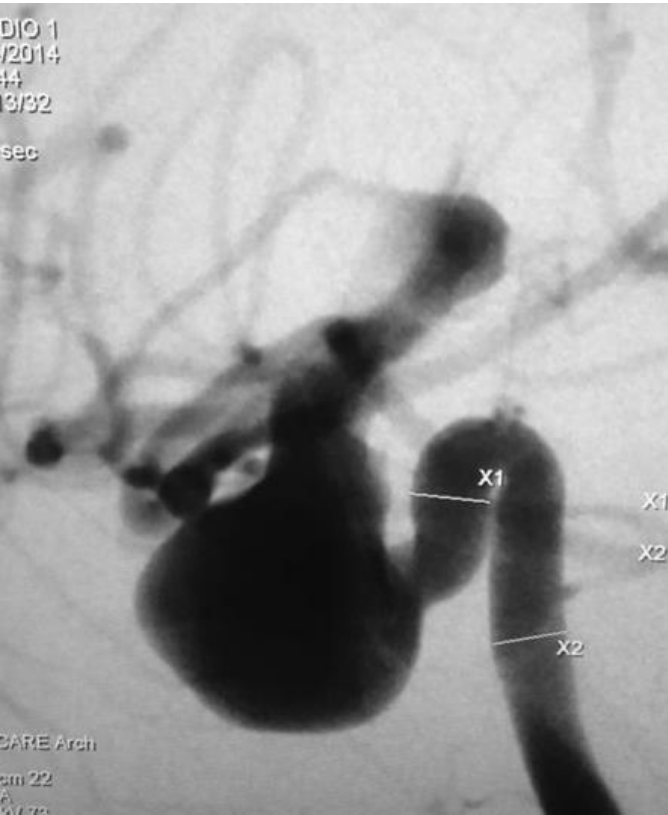
LONGER DEVICES

Product Sizes and Catalog Numbers

		Diameter (mm)			
		2 ^{1/2}	3	4	5
Length (mm)	12	502FPP			
	15	503FPP	100FPP	115FPP	
	20	504FPP	101FPP	110FPP	124FPP
	25		102FPP	111FPP	120FPP
	30			112FPP	121FPP
	40			113FPP	122FPP
	50			114FPP	123FPP

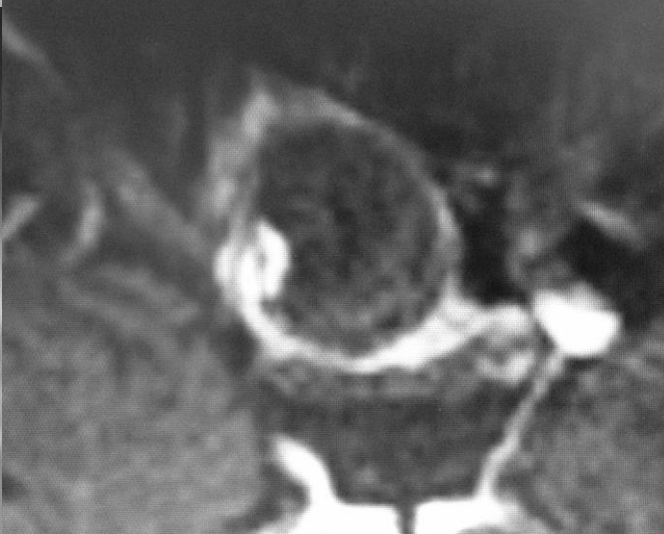
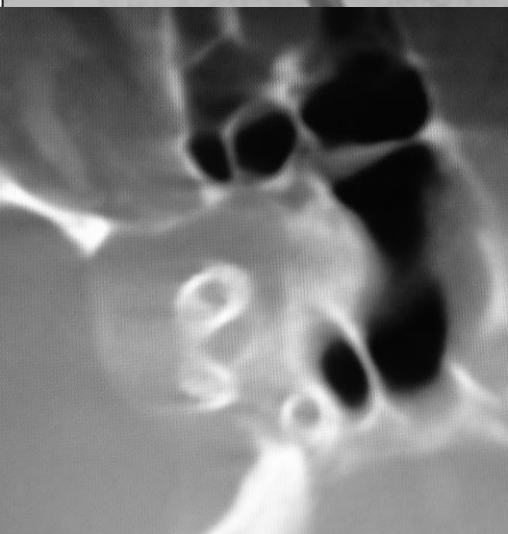
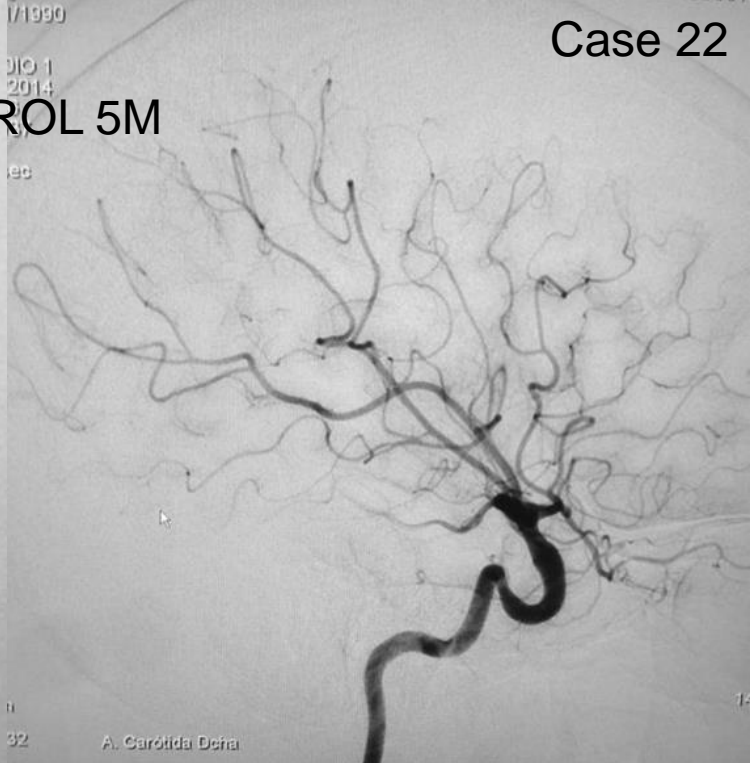
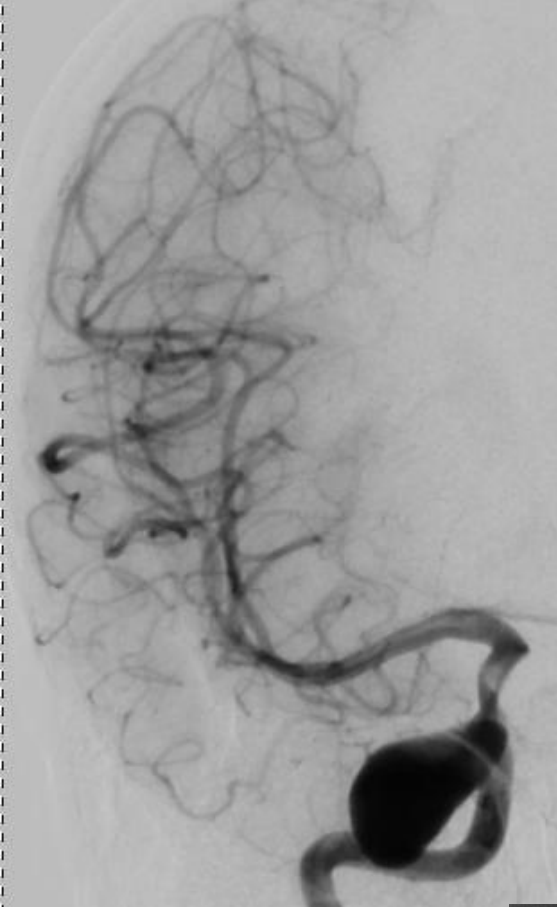
Note that the Series also is now available on the Process Performance Platform system.

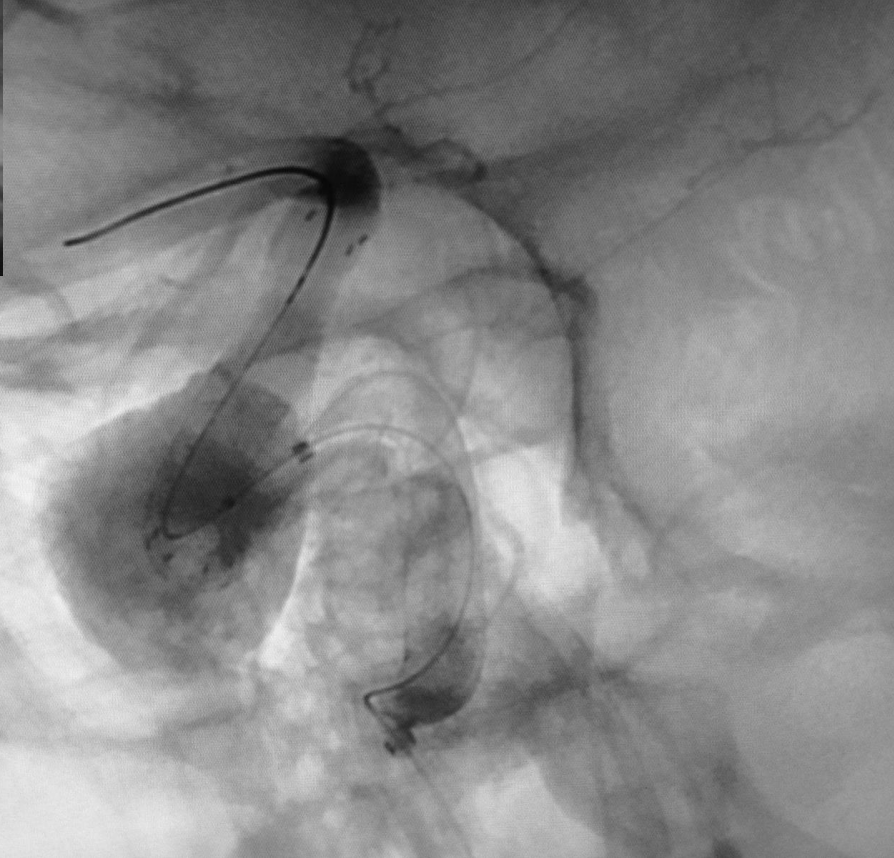
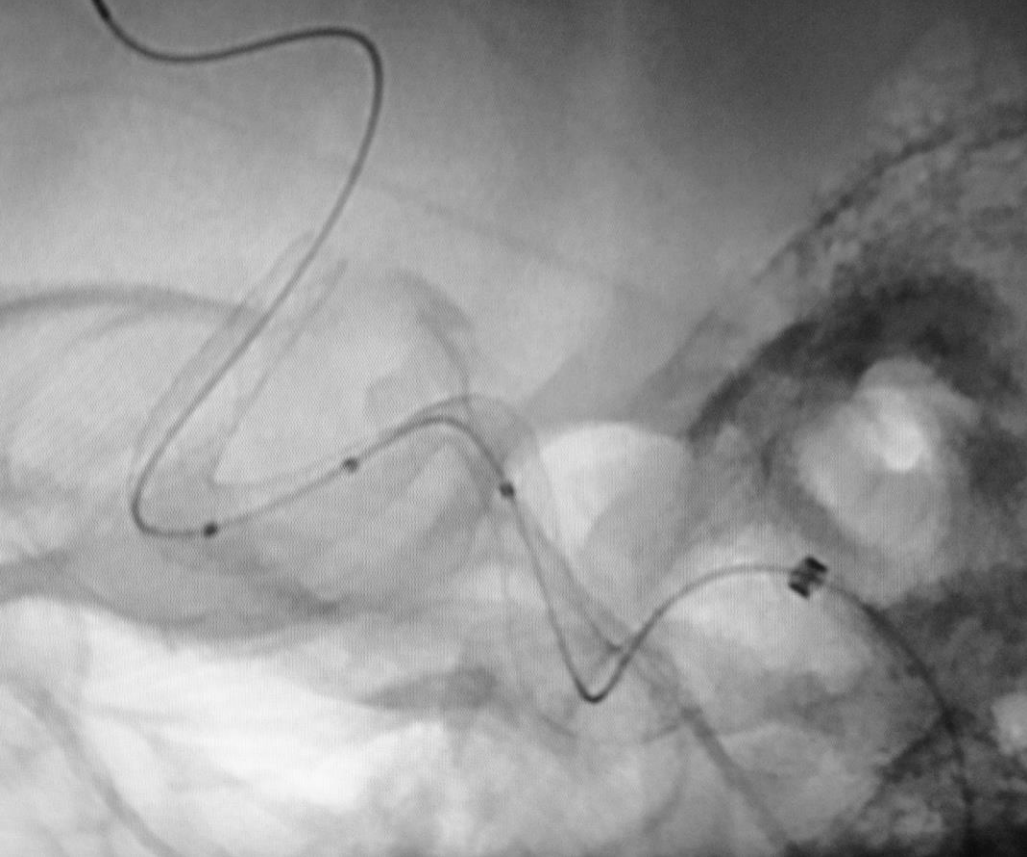
Case 22 alicante 11/04/14



4X50
+ WINGSPAN

CONTROL 5M

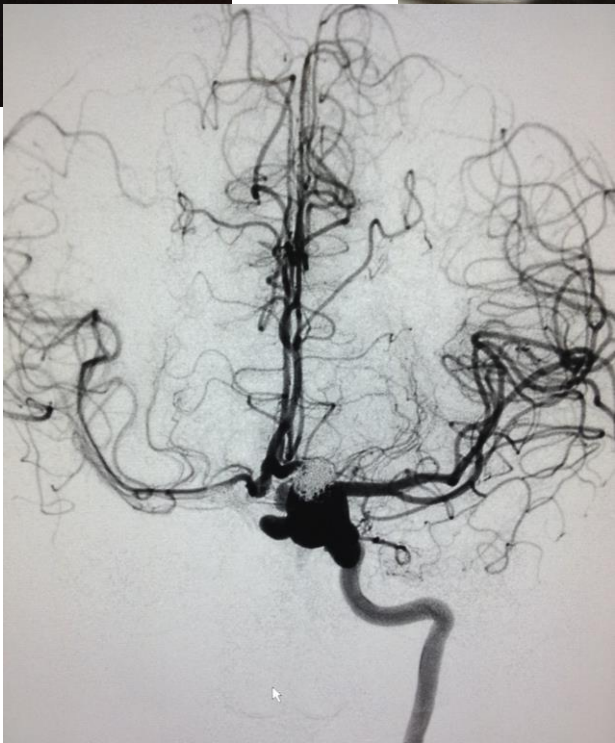
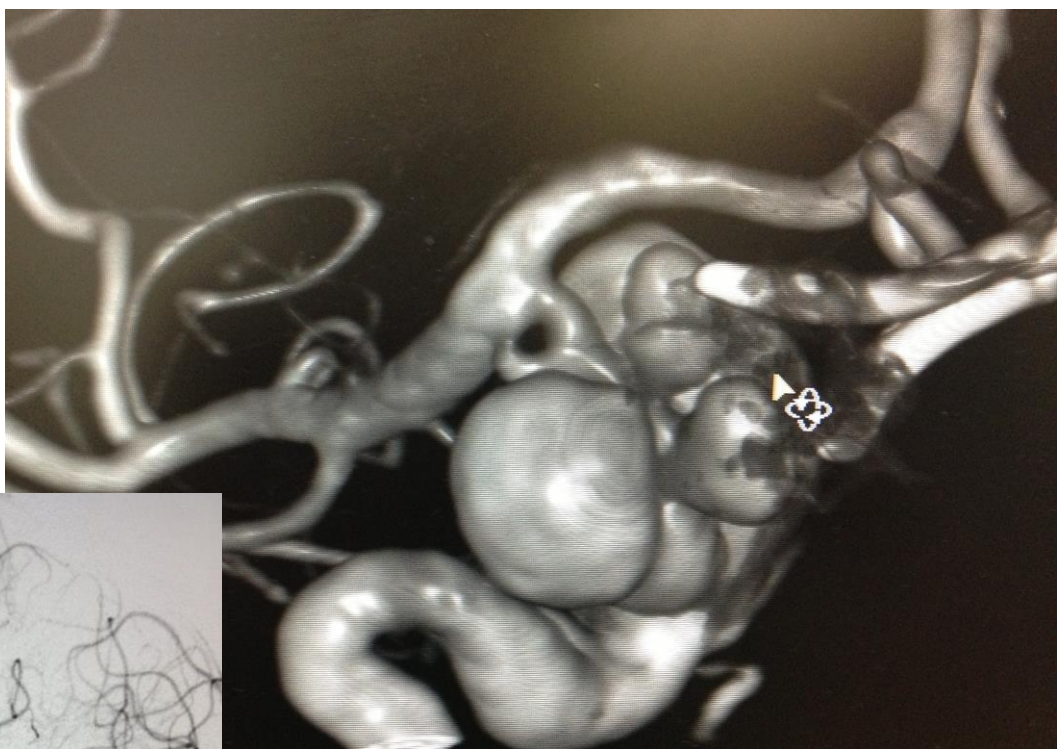
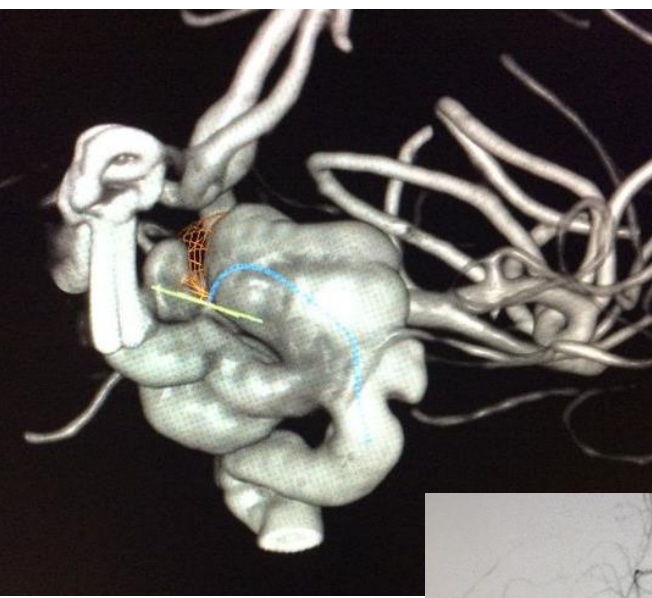


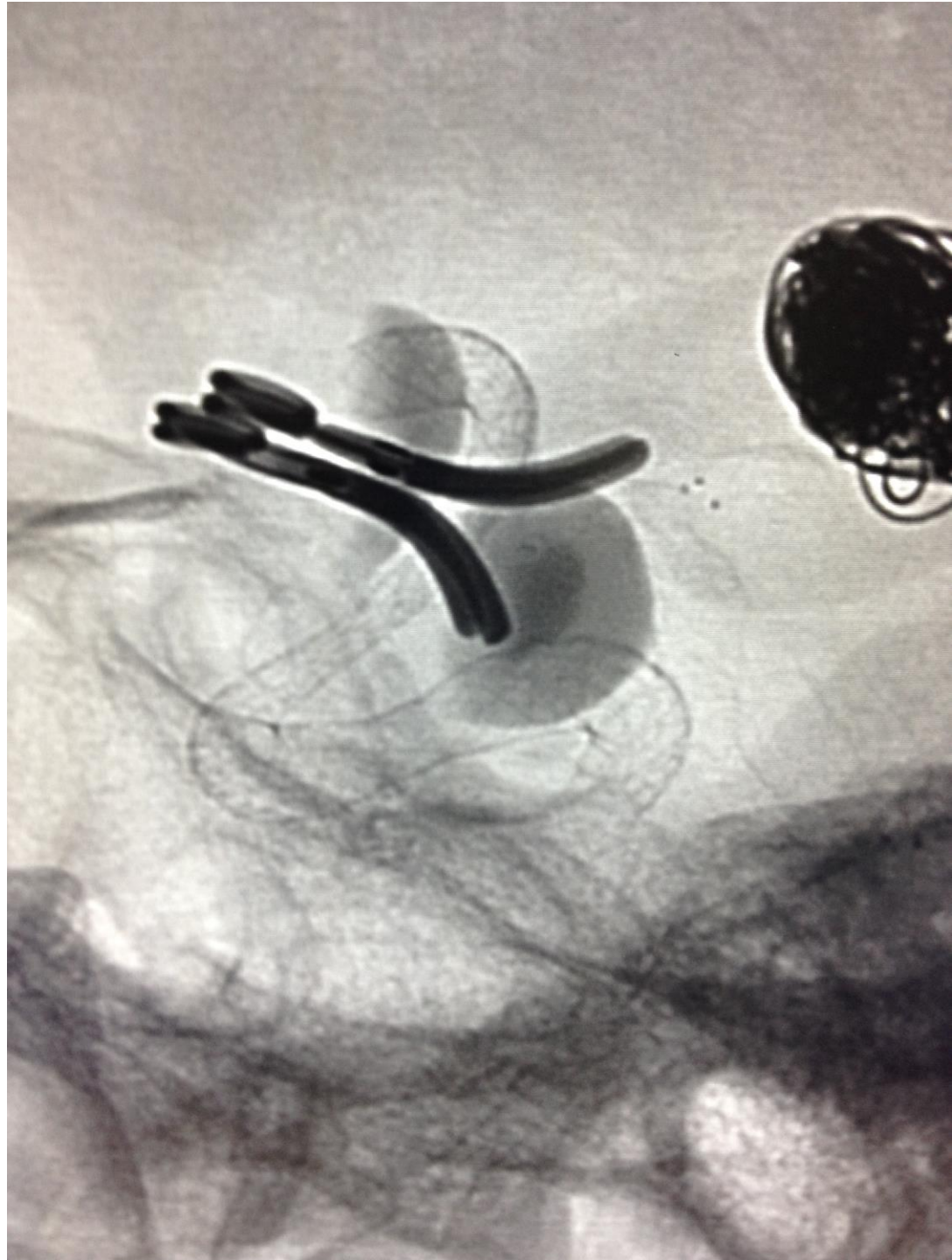
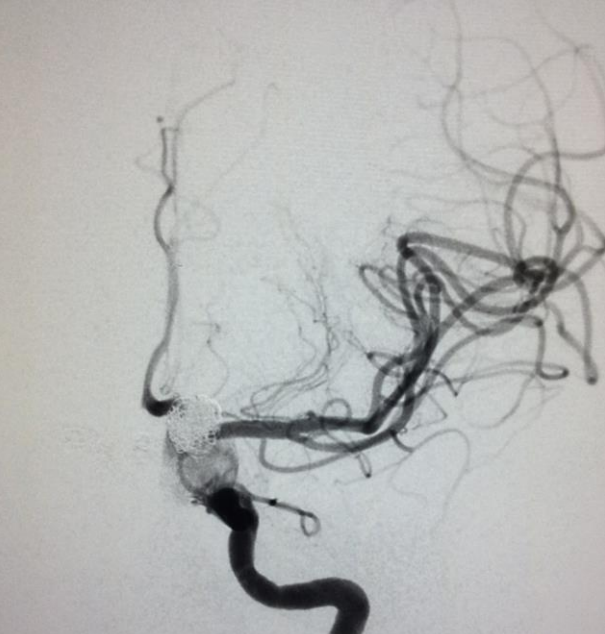


4X40

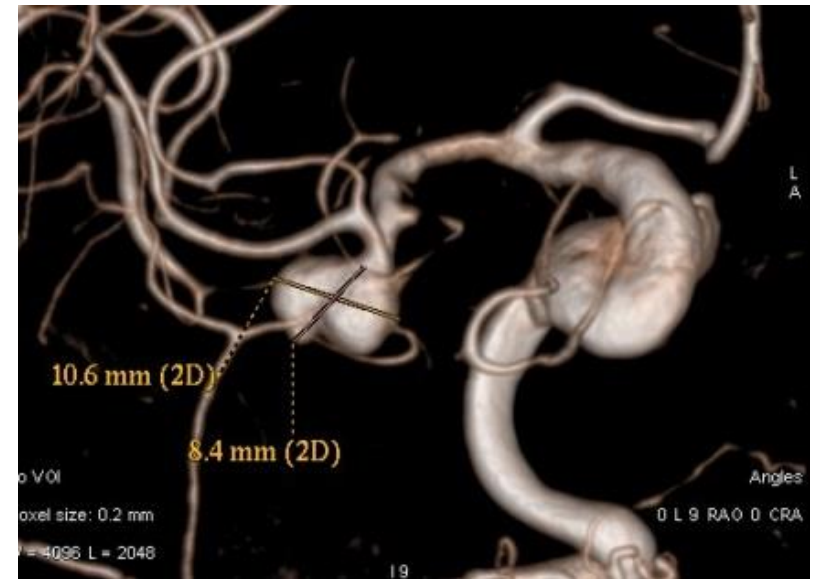
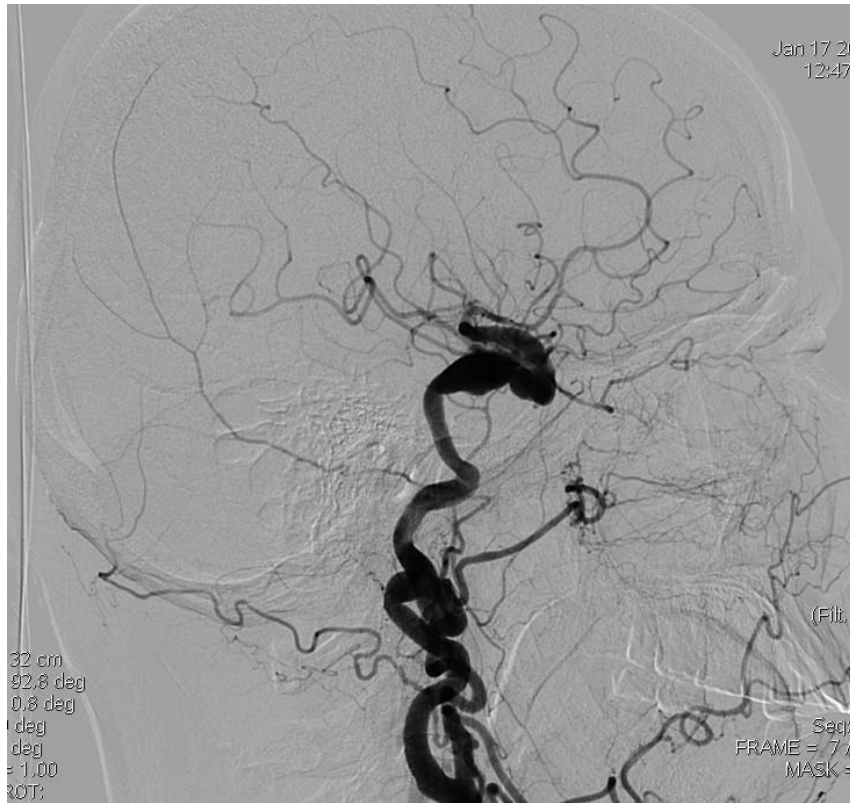
Case 31

Case 31 VALENCIA FE 10/07/14





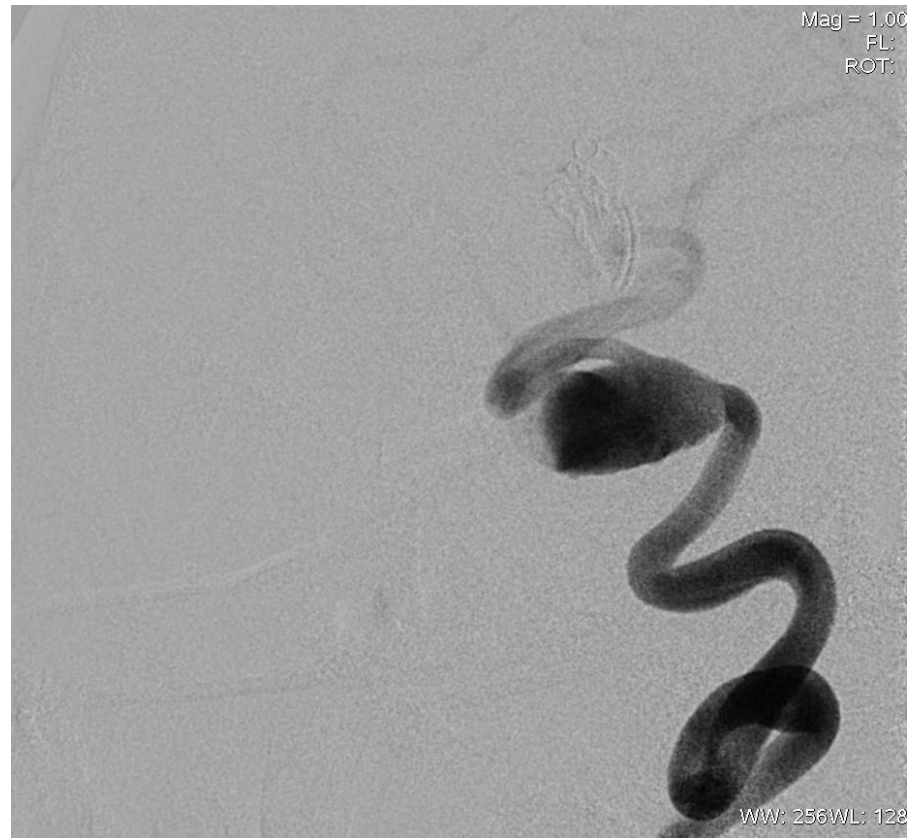
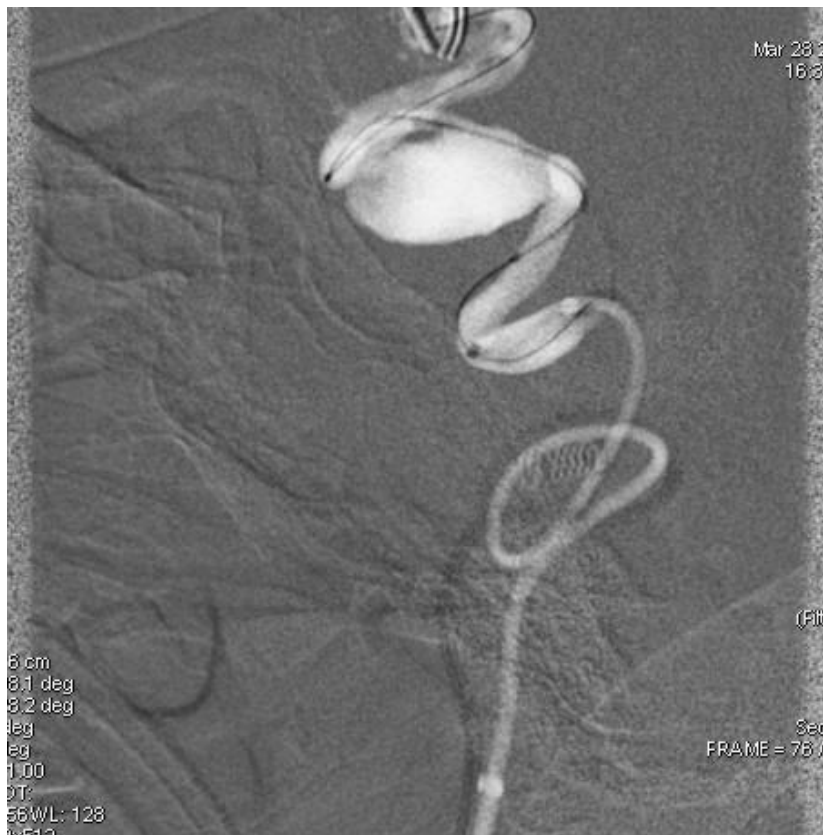
72 yo, female, acute right-sided SAH, MCA bifurcation clipped, distal ICA: Surpass™ 5x40mm



72 yo, female, acute right-sided SAH, MCA bifurcation clipped, distal ICA: Surpass™ 5x40mm



72 yo, female, acute right-sided SAH, MCA bifurcation clipped, distal ICA: Surpass™ 5x40mm

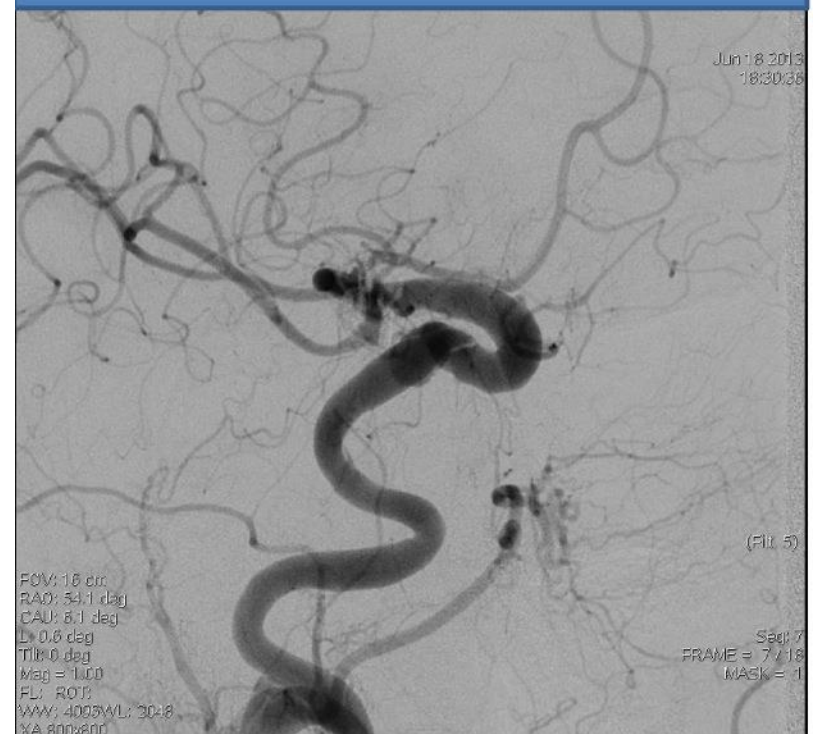


72 yo, female, acute right-sided SAH, MCA bifurcation clipped, distal ICA: Surpass™ 5x40mm

Before



After 10 weeks



24 yo, Female, 5 Days Post Ictal Surpass™
4x30mm

Preop



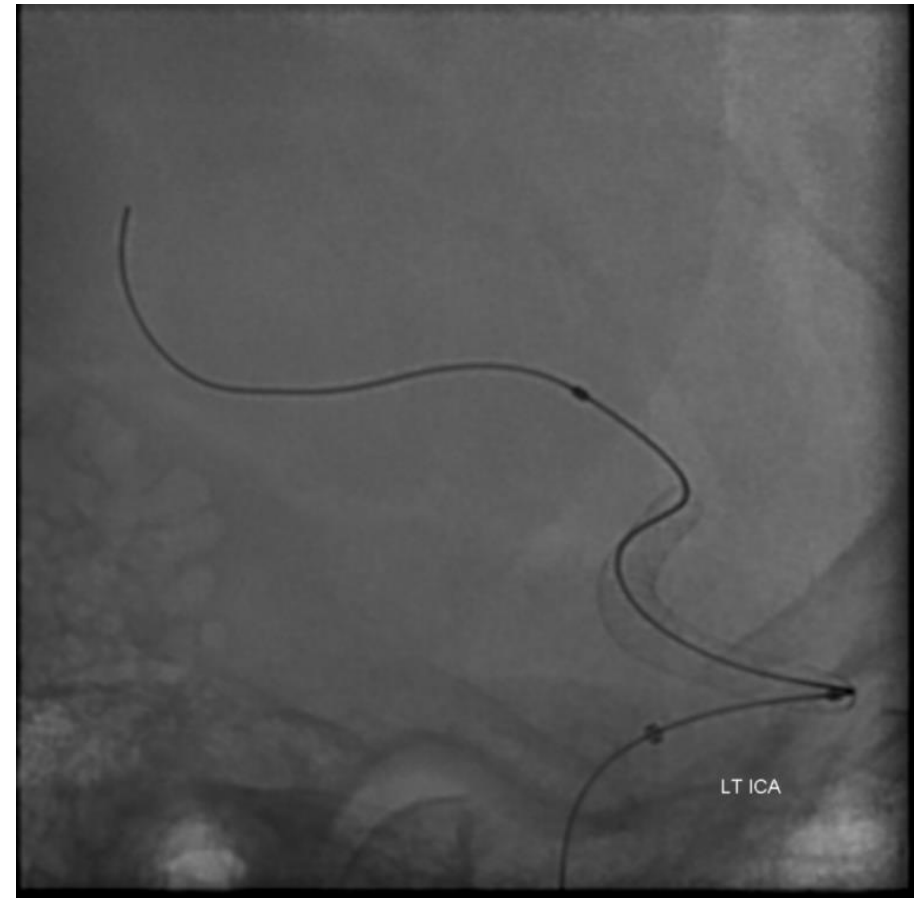
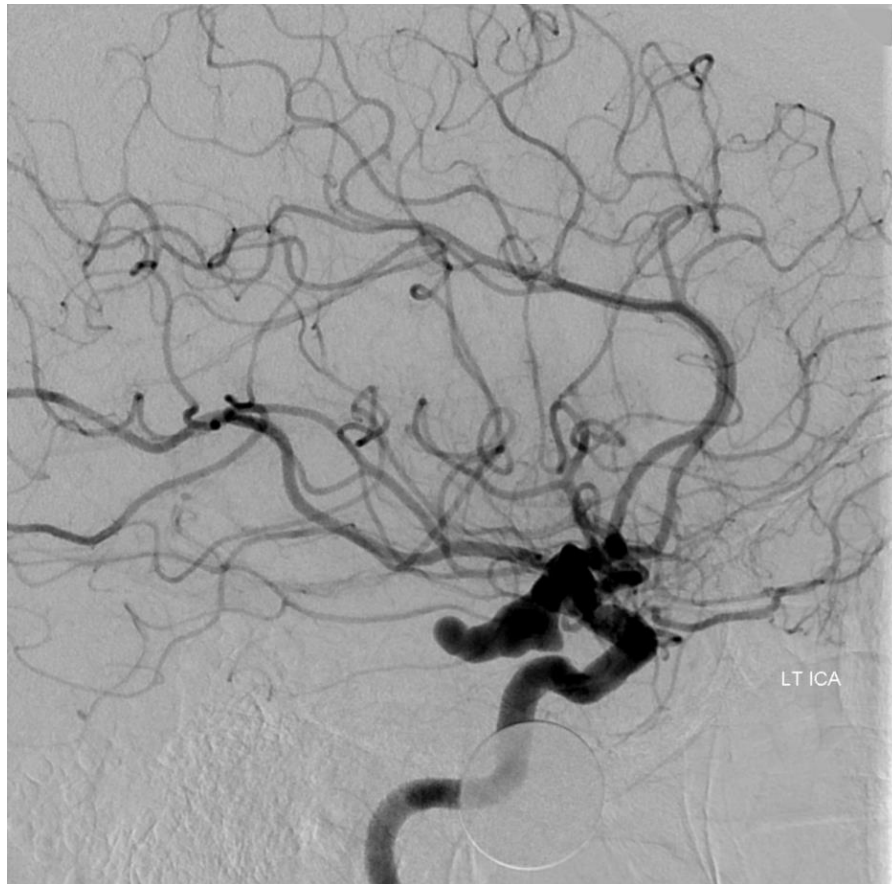
1 year DSA Follow Up



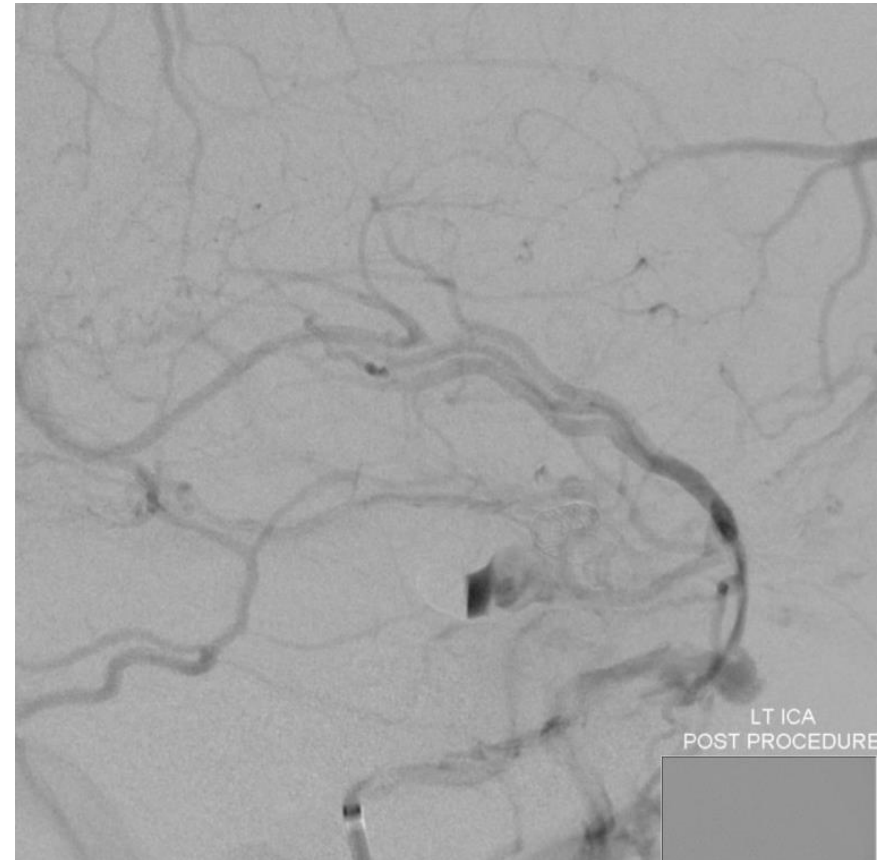
24 yo, Female, 5 Days Post Ictal Surpass™
4x30mm



67 yo, female, acute IIIrd Palsy, Left Pcom:
Surpass™ 4x25mm

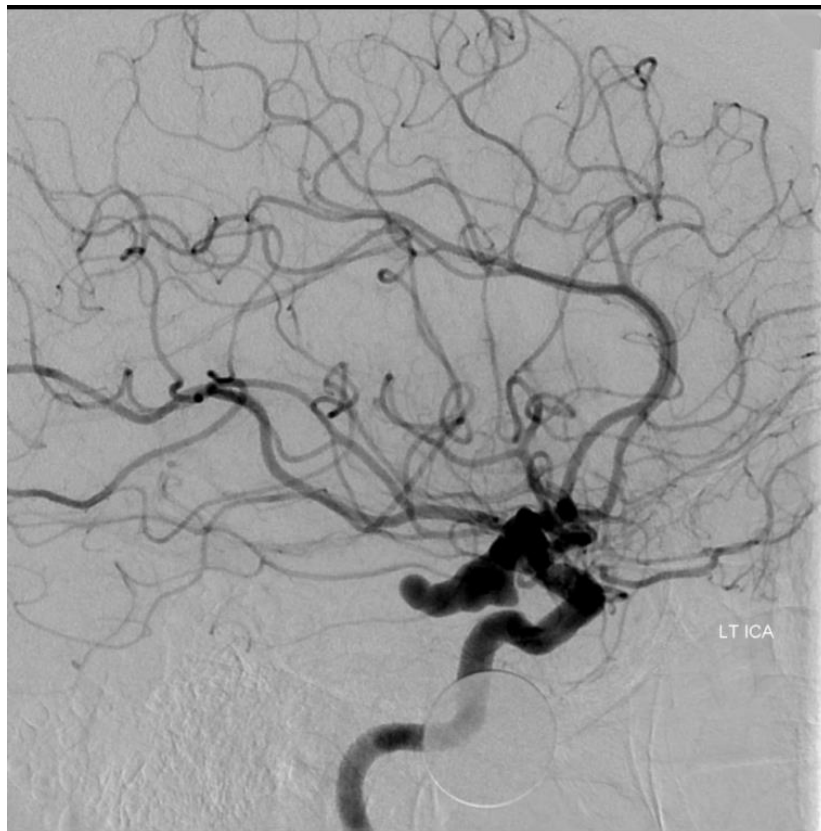


67 yo, female, acute IIIrd Palsy, Left Pcom:
Surpass™ 4x25mm



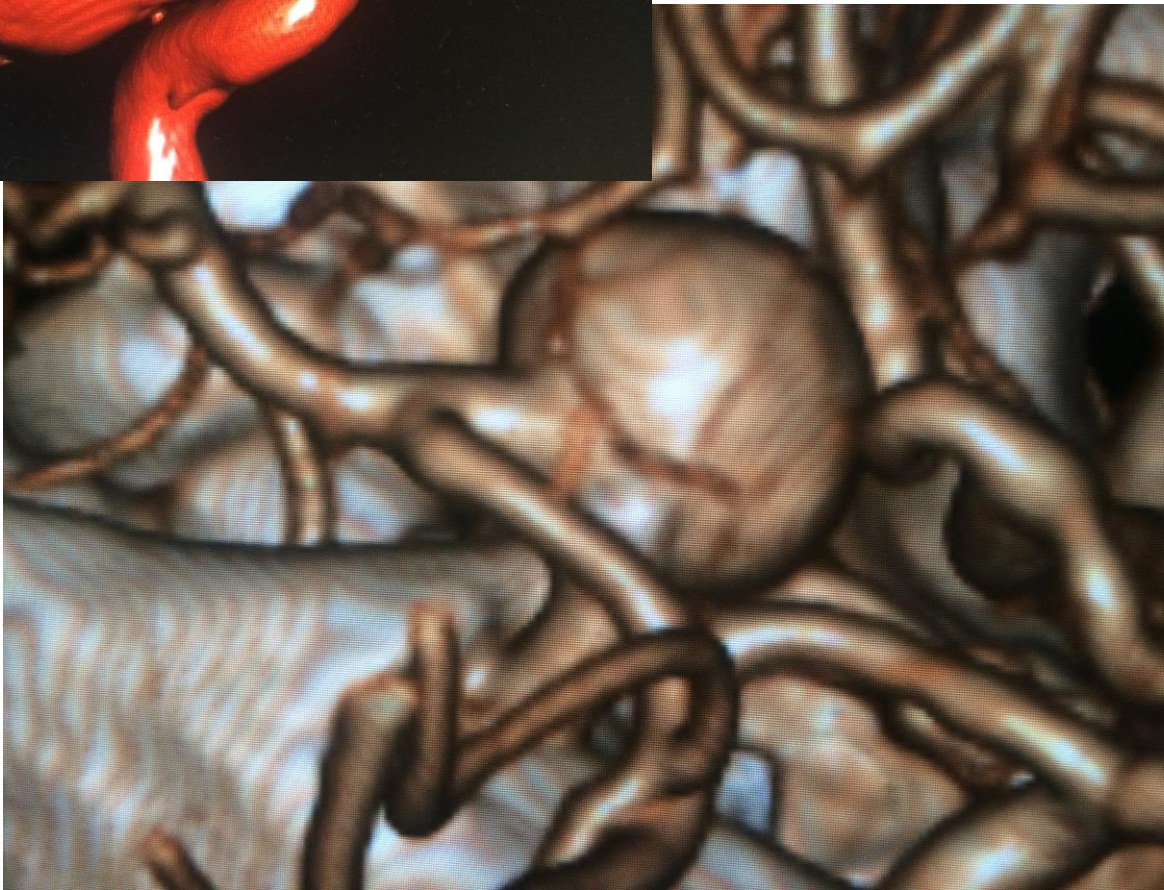
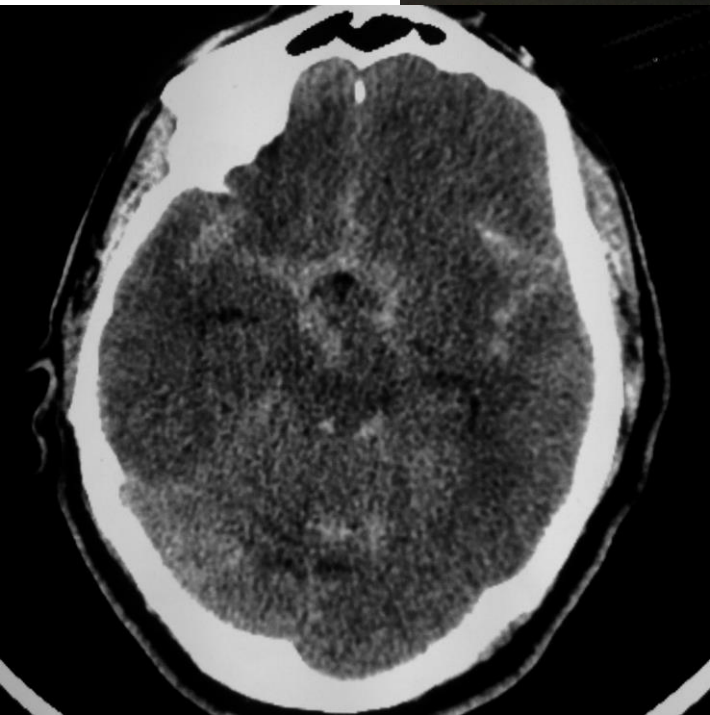
67 yo, female, acute IIIrd Palsy, Left Pcom:
Surpass™ 4x25mm

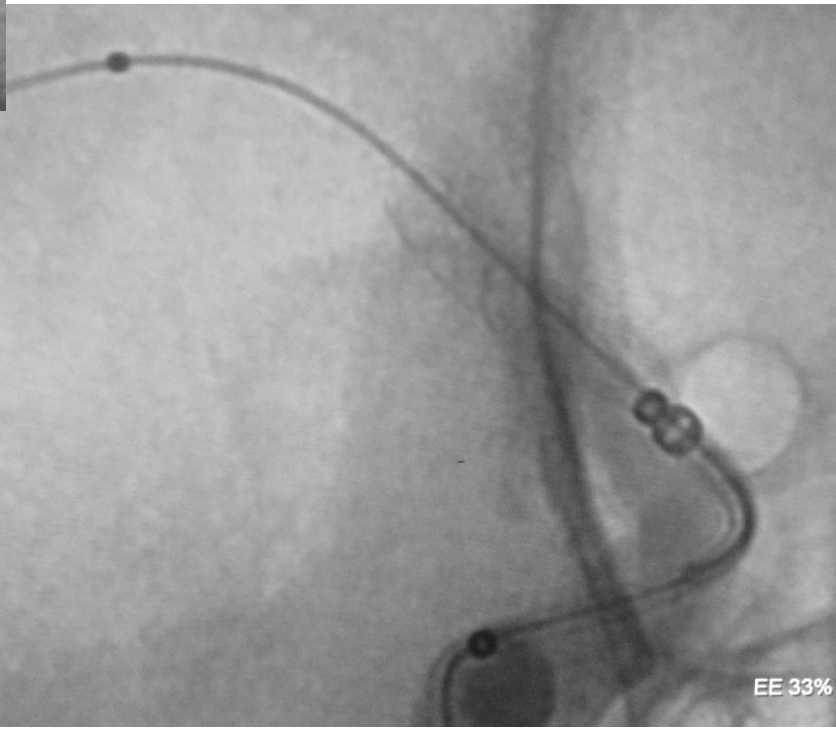
Pre-operative

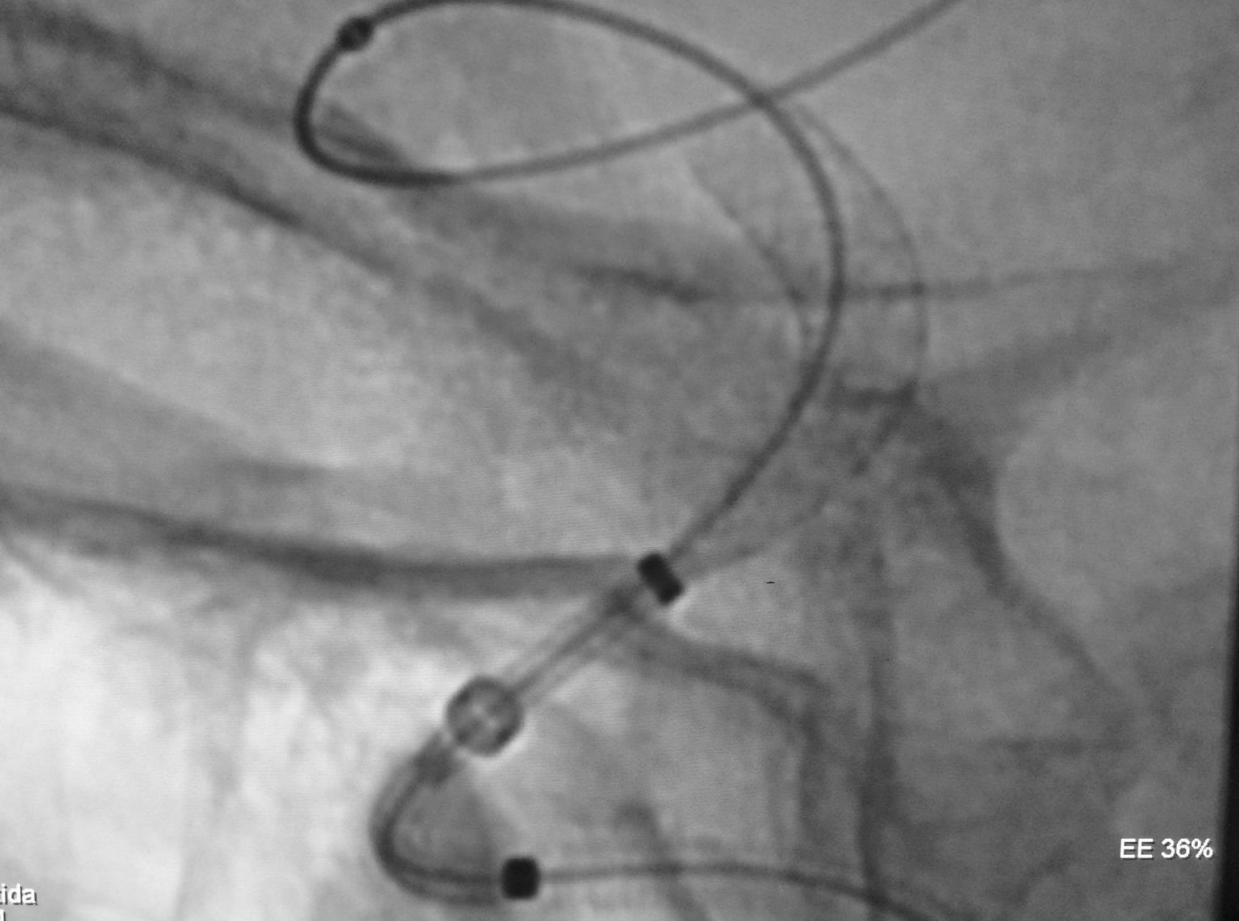


7 months FU



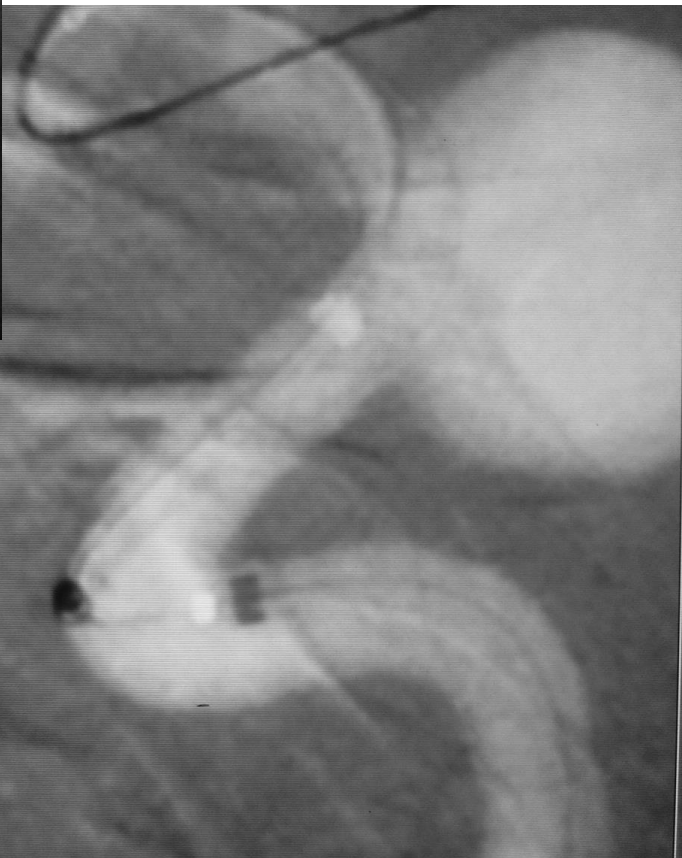


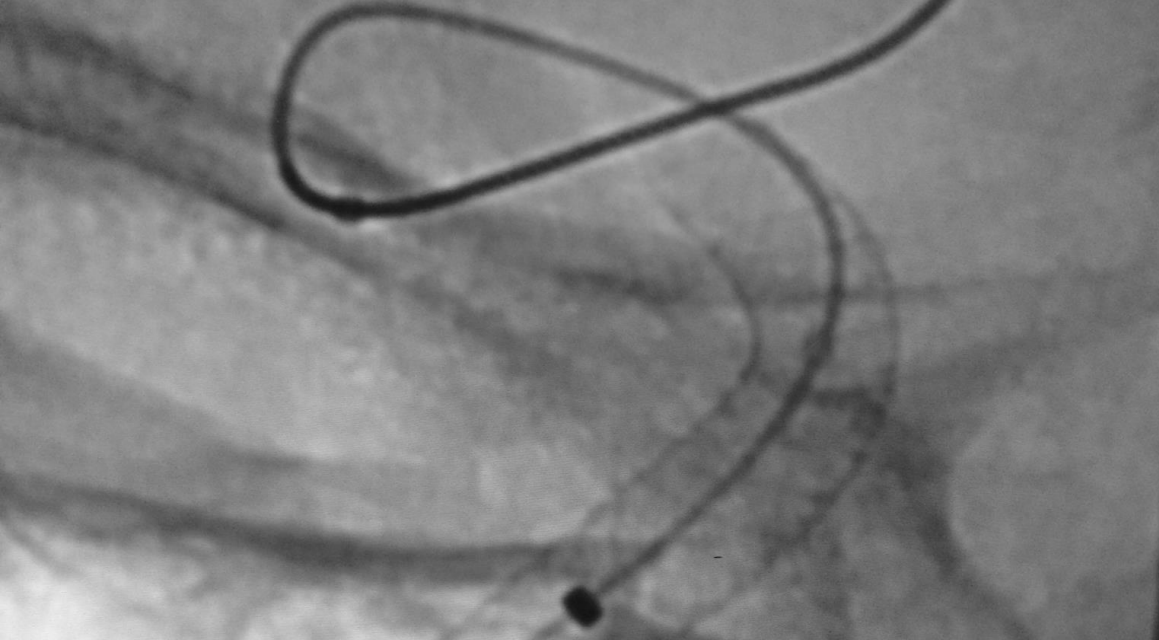




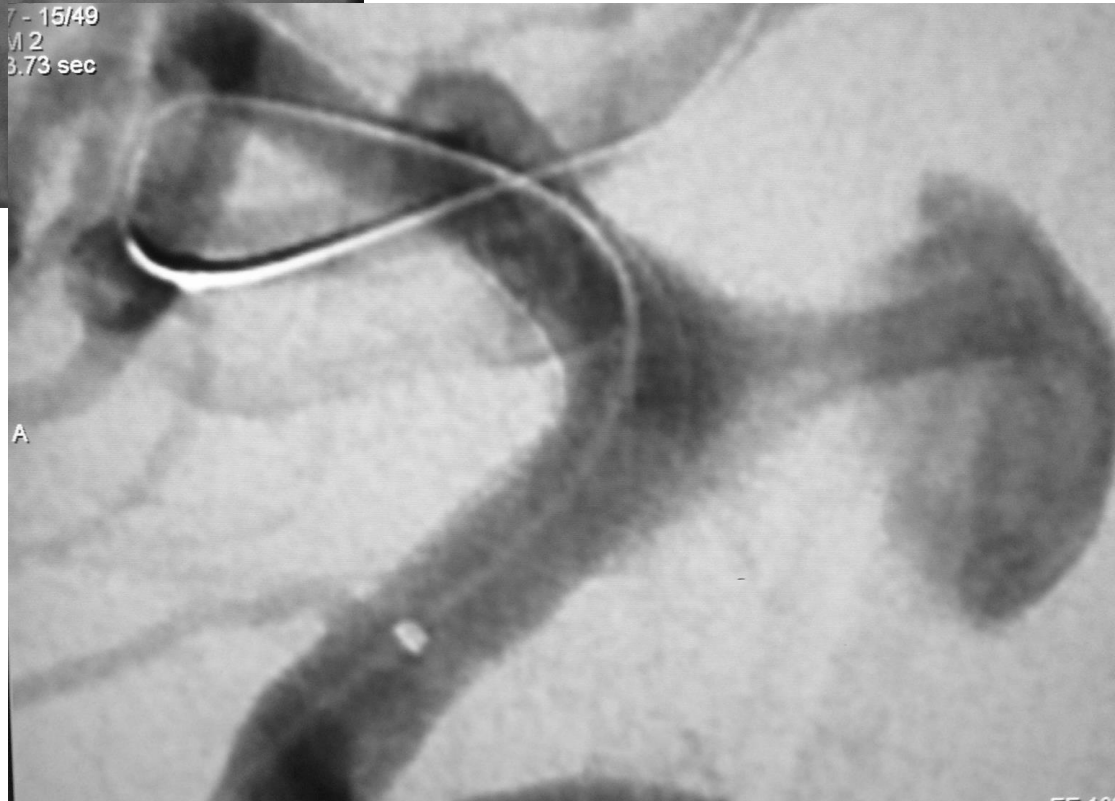
EE 36%

ida

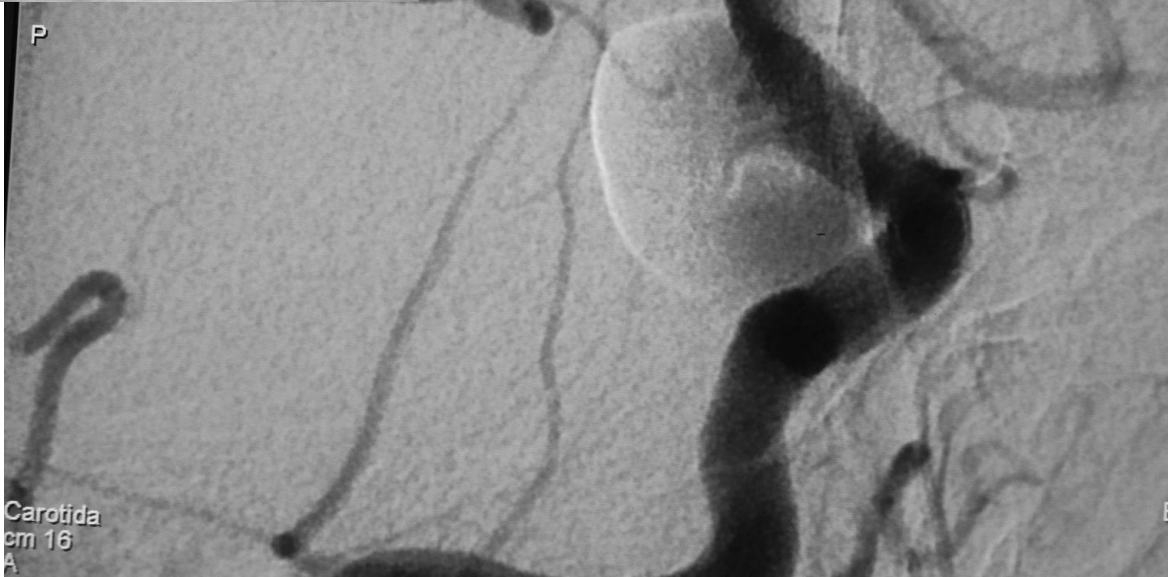
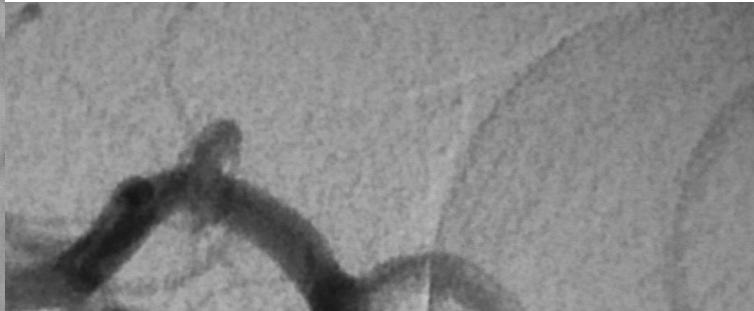
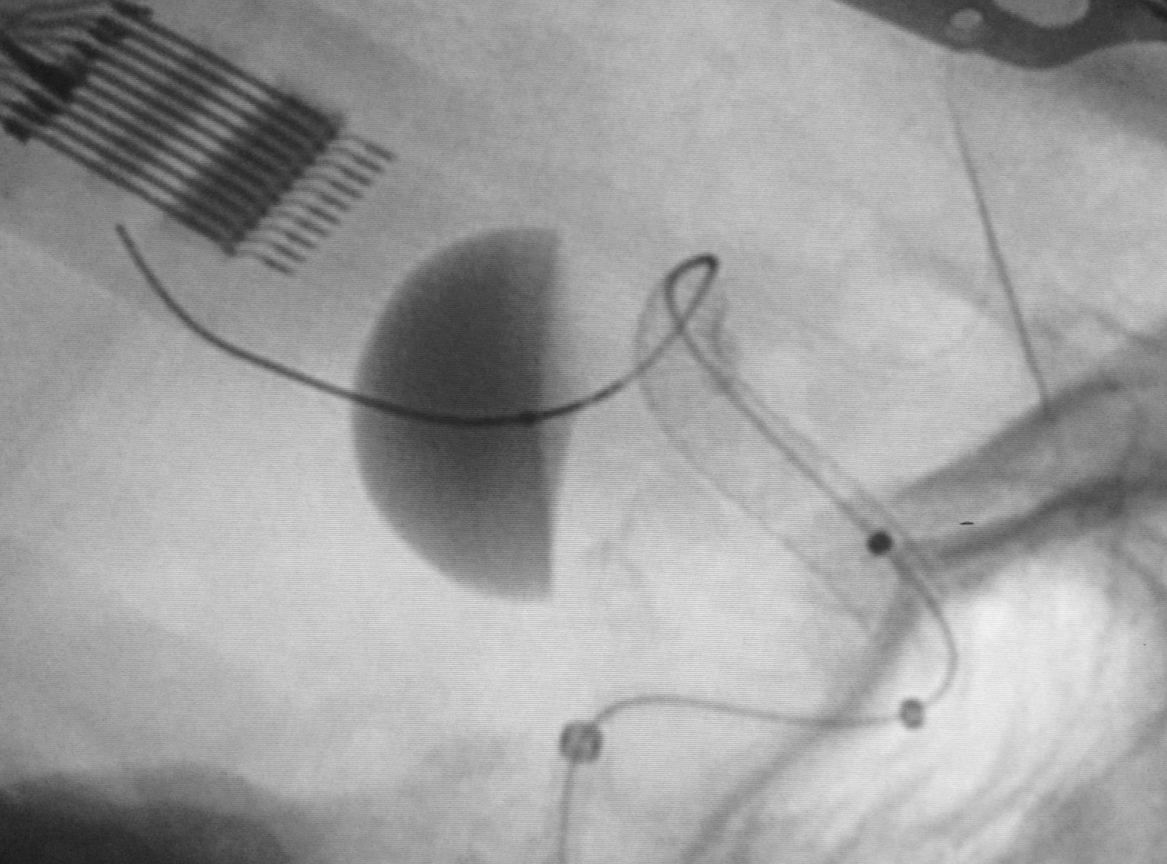




7 - 15/49
M2
3.73 sec



A





Merci Beaucoup