

Common Femoral Artery Diameter

AGE (Months)	CFA DM (mm)	Material (Outer DM in mm)									
		Neuron Max 0.88 (2.67)	Chaperon MP2 (2.1)	Radial S* 5F (2.14)	Radial S* 6F (2.44)	Femoral [‡] Intro 4F (2.1)	Femoral [‡] Intro 5F (2.33)	Femoral [‡] Intro 6F (2.67)	Radial [°] Intro 4-F (1.95)	Radial [°] Intro 5-F (2.31)	Radial [°] Intro 6-F (2.63)
0-3	2.1 (1.8–2.5)	Red	Red	Red	Red	Red	Red	Red	Green	Red	Red
3.1-6	2.3 (1.9–2.5)	Red	Orange	Orange	Red	Orange	Red	Red	Green	Red	Red
6.1-9	2.6 (2.3–2.8)	Red	Green	Green	Orange	Green	Orange	Red	Green	Orange	Red
9.1-12	2.8 (2.4–3.0)	Orange	Green	Green	Green	Green	Green	Orange	Green	Green	Orange
13-24	3.2 (2.8–3.7)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
25-36	3.8 (3.3–4.0)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
37-48	3.9 (3.5–4.3)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
5-7 yo	4.5 (3.6-5.7)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
8-12 yo	6.2 (5-7.5)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
12-14	7.5 (6-8)	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

*Introducer sheaths sizes provided for Terumo, DA, Somerset, NJ, US: * Glidesheath Slender, ‡ Pinnacle Sheath, ° Glidesheath; Neuronmax (Penumbra, Alameda, CA, USA); Chaperon (Microvention, Tustin, CA, USA); CFA: Common femoral artery; DM : diameter;*

Red color: OD of the material is similar or bigger to the average arterial diameter
 Orange color: OD of the material is close to the average value of arterial diameter
 Green: OD of the material is about 0.5 mm lower than the average arterial diameter

Figure 2. Expected diameters based on age and introducer compatibility adapted after [7-8, 16-17]

Middle Cerebral Artery Diameter						
AGE (Months)	MCA DM (mm)	Material (Outer Diameter in mm)				
		SOFIA Plus (2.1)	RED 62° (1.93)	3 MAX° (1.27)	SOFIA [‡] 5 (1.73)	REACT [†] 68 (2.11)
0-6	2.3 (2–2.5)	Yellow	Yellow	Green	Green	Yellow
6-12	2.48 (2.1–3.3)	Yellow	Green	Green	Green	Yellow
12-24	2.6 (2.1–3.3)	Green	Green	Green	Green	Green
24-48	2.7 (2.2–3.3)	Green	Green	Green	Green	Green
48-72	2.74 (2.3–3.4)	Green	Green	Green	Green	Green
>72	3.5 (3–4)	Green	Green	Green	Green	Green
Adults	3-3.5 (3-4)	Green	Green	Green	Green	Green

[‡] Microvention, Tustin, CA, USA; ° Penumbra, Alameda, CA, USA; [†] Medtronic, Irvine, CA, USA; DM: diameter; MCA: Middle cerebral artery

Basilar Artery Diameter						
AGE (Months) ≈	BA DM (mm)	Material (Outer Diameter in mm)				
		SOFIA [‡] Plus (2.1)	RED° 62 (1.93)	3 MAX° (1.27)	SOFIA [‡] 5 (1.73)	REACT [†] 68 (2.11)
0-11	NA	Green	Green	Green	Green	Green
12	2	Red	Red	Green	Yellow	Red
24	4	Green	Green	Green	Green	Green
36	4	Green	Green	Green	Green	Green
48	4.5 (4-4.7)	Green	Green	Green	Green	Green
5-9 yo	4.5 (4–5)	Green	Green	Green	Green	Green
10-14 yo	4.5 (4-5)	Green	Green	Green	Green	Green

[‡] Microvention, Tustin, CA, USA; ° Penumbra, Alameda, CA, USA; [†] Medtronic, Irvine, CA, USA; DM: diameter; BA: basilar artery;

Internal Carotid Artery Diameter								
AGE (Months)	ICA DM (mm)	Material (Outer Diameter in mm)						
		NeuronMax° (2.67)	Chaperon [‡] (2.1)	SOFIA Plus [‡] (2.1)	RED 62° (1.93)	3 MAX° (1.27)	SOFIA 5 [‡] (1.73)	REACT 68 [†] (2.11)
0-6	2.7 (2.5–3.3)	Red	Green	Green	Green	Green	Green	Green
6-12	3 (2.5–4.2)	Yellow	Green	Green	Green	Green	Green	Green
12-24	3.4 (2.5–4.9)	Green	Green	Green	Green	Green	Green	Green
24-48	3.6 (2.7–5.5)	Green	Green	Green	Green	Green	Green	Green
48-72	3.6 (2.7–5.5)	Green	Green	Green	Green	Green	Green	Green
>72	4 (3–5.5)	Green	Green	Green	Green	Green	Green	Green
Adults	4.1 (3.6-6)	Green	Green	Green	Green	Green	Green	Green

[‡] Microvention, Tustin, CA, USA; ° Penumbra, Alameda, CA, USA; [†] Medtronic, Irvine, CA, USA; DM: diameter; ICA: Internal Carotid Artery;

Figure 3. Expected diameters based on age and catheter compatibility adapted after [9, 19]

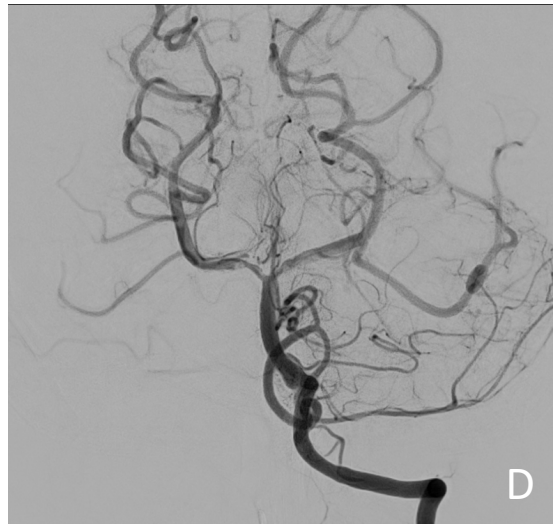
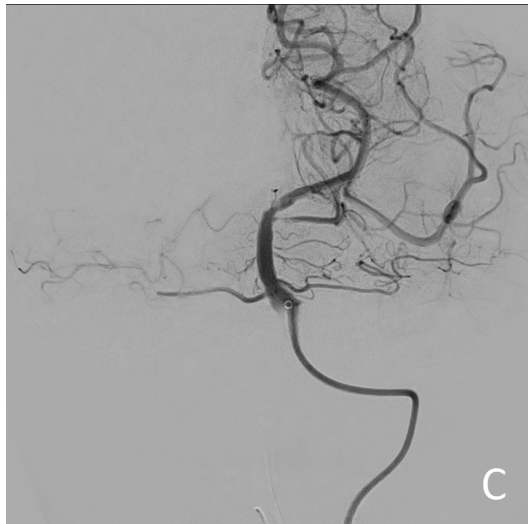
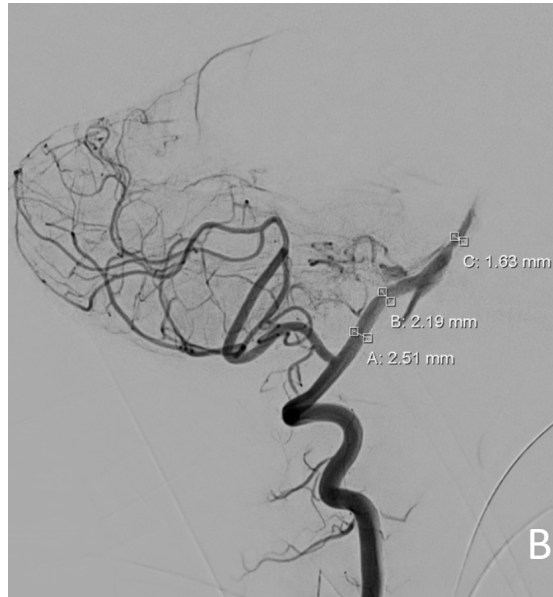
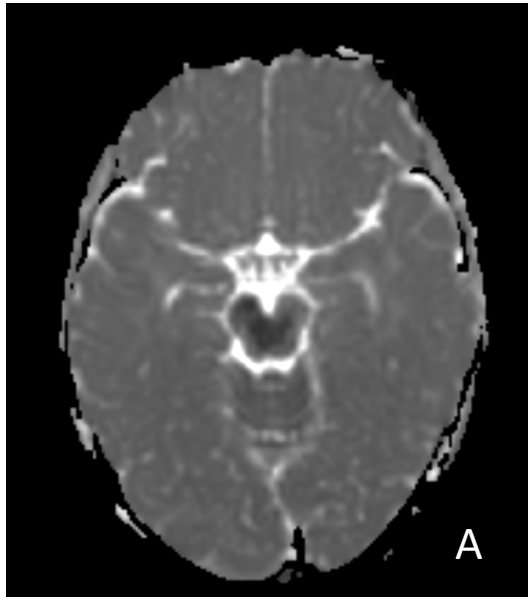


Figure 1. MRI and DSA of our index case. A. MRI imaging showing decreased ADC in the mesencephalon; B. Lateral projection DSA showing basilar occlusion with associated arterial diameters; C. Frontal DSA after the first passage. D. Final frontal DSA showing small vasospasm in the right PCA, turbulence due to competitive flow coming from the PcoM in the left PCA and persistent occlusion of the right SCA.