Online Supplemental Data

Supplementary Tables

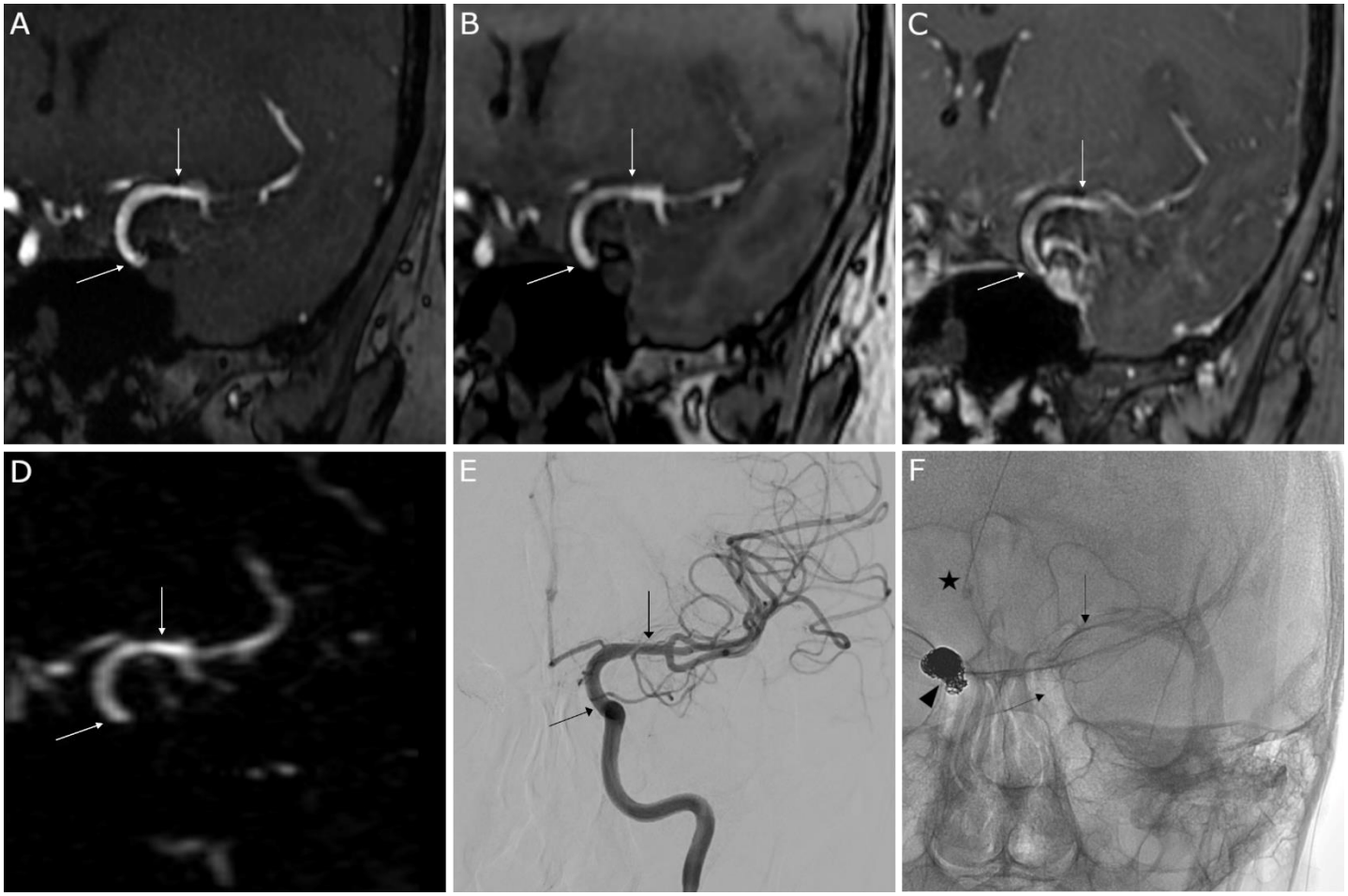
Device	Number of wires	Wire size	Composition	Size	Delivery catheter
Pipeline Shield (Medtronic; Dublin, Ireland)	48	~ 30 µm	Cobalt-chromium Platinum-tungsten for visibility	Diameter 2.5-5 mm Length 10-35 mm	0.027”
Surpass Evolve (Stryker Neurovascular; Fremont, California, USA)	64 (48 for the 2.5 mm)	~ 28 µm	Cobalt-chromium Platinum-tungsten for visibility	Diameter 2.5-5 mm Length 12-40 mm	0.027”
Silk Vista Baby (Balt Extrusion; Montmorency, France)	48	-	Nitinol Platinum for visibility	Diameter 2.25-3.25 mm Length 10-25 mm	0.017”

Supplementary Table 1: Main technical characteristics of flow diverters that were used and evaluated in this study

	3D-TOF with HyperSense	LAVA-Flex	TRICKS	Delayed CE-MRA
TR (ms)	19	3.9	3	9.4
TE (ms)	3.4	2,2 (InPhase) / 1,1 (OutPhase)	1.3	3.8
Flip angle	15°	9°	20°	10°
Total acquisition time	2 min 59 s	1 min 57 s	1 min 08 s	3 min 07 s
Number of sections	176	184	60	300
Section thickness (mm)	0.5	0.5	1.3	0.6
Matrix	400 x 300	180 x 256	224 x 192	320 x 320
Field of view (mm)	310 x 220	367 x 260	361 x 256	367 x 260
Bandwidth (kHz)	41.7	142.9	125.0	31.2
NEX	0.84	2.79	0.5	1

Supplementary Table 2: Scan parameters of NC-MRA sequences and CE-MRA sequences used in this study

Supplementary Figure



Supplementary Figure 1. 41-year-old woman treated for an unruptured posterior communicating artery aneurysm with a 4 x 14 Pipeline Shield FD placed between the left ICA and the left middle cerebral artery. A-B, NC-MRA showing no in-stent stenosis on either 3D-TOF with HyperSense (A) or LAVA-Flex (B). C-D, CE-MRA showing no in-stent stenosis, on either delayed CE-MRA (C) or TRICKS-MRA (D). E, DSA confirming the absence of in-stent stenosis. F, Unsubtracted angiography before injection of contrast media showing the flow diverter, a ventricular catheter (black star), and coils within a large right posterior communicating aneurysm embolized 2 years earlier, revealed by a subarachnoid hemorrhage. Black and white arrows show the proximal and distal ends of the flow diverter on each panel.