SUPPLEMENTAL MATERIAL

Endovascular treatment of wide-necked intracranial aneurysms using the Nautilus Intrasaccular System: Initial case series in 41 patients at a single-center

SUPPLEMENTAL FIGURES

Supplemental Figure 1: Illustration of the Nautilus Intrasaccular System
A) During insertion into the aneurysm, the Nautilus device is flexible and easily bendable. B) Its structure changes into a firmer, discus shape after being fully deployed into the aneurysm sac at body temperature. C) Once deployed, the Nautilus features a central hole through which a microcatheter is navigated for coil insertion. D) The fully deployed Nautilus Intrasaccular System creates a solid mechanical barrier that facilitates complete embolization of the target aneurysm.
Supplemental Figure 2: Nautilus-assisted embolization of a giant ICA aneurysm at the right ophthalmic segment.

A) The angiographic working projection and B) 3D virtual rendering demonstrated the anatomical details of the target lesion. C) The intrasaccular implant was deployed inside the dome and then slowly retracted at the neck level. D) Navigation of the second coiling microcatheter was straightforward, as demonstrated in the 3D roadmap image. E) Note the perfect visualization of the Nautilus under fluoroscopy. F) We noted increased device compliance with every coil inserted into the aneurysmal sac. G) End-of-procedure angiogram of the giant and symptomatic ICA aneurysm. H) 6-month magnetic resonance angiography demonstrates complete obliteration of the aneurysm.
Supplemental Figure 3: Nautilus-assisted embolization of a small saccular MCA aneurysm in the setting of SAH.

A) Pre-procedure angiographic imaging of the aneurysm. B) Note the broad base characteristics of the ruptured aneurysm and the proximally adjacent M2 branches. C) After careful deployment of the intrasaccular implant, the central pore of the Nautilus was navigated with the coiling microcatheter (D). (E,F) The device was kept attached until the last embolization coil was deployed. G) End-of-procedure angiogram with evidence of contrast filling the neck and the proximal coil mass (white arrow). H) Progressive and complete obliteration was confirmed on the 6-mo follow-up angiography. Note the biological remodeling of the aneurysmal neck (white arrow).