Nautilus-assisted coil embolization for a complex AcomA wide-necked aneurysm in the setting of acute subarachnoid hemorrhage

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ABSTRACT
Numerous devices and sophisticated strategies have been developed to further increase the number of aneurysms amenable to endovascular treatment.1–4 Despite the superfluity of available neurovascular armamentarium, wide-necked bifurcation aneurysms can still pose a significant technical challenge to the treating clinician.5–7 Neck bridging is a conceptually new approach, which provides increased occlusion rates with lower recurrence and complications rates.8–10 The Nautilus (EndoStream Medical) is an intrasaccular bridging device intended to assist in coil embolization of wide-necked cerebral aneurysms. This CE-marked device, available in various sizes, consists of flexible-layers, and is a nitinol-based, detachable implant. The device is delivered through a standard microcathether with a minimal 0.0165” inner diameter and is fully radiopaque and completely resheathable.

Owing to its unique ‘tornado’ like shape the device entirely reconstructs the aneurysmal neck, which facilitates the following coil embolization. In this video 1, we demonstrate the use of Nautilus-assisted coil embolization for a complex anterior communicating artery (AcomA) wide-necked aneurysm in the setting of acute subarachnoid hemorrhage.

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REFERENCES