SILK flow diverter

The SILK flow diverter (SFD; Balt Extrusion, Montmorency, France) is a closed cell mesh cylinder comprised of 48 braided nitinol strands and 35 µm platinum microfilaments with a high resultant metal surface coverage (approximately 35%). As a closed cell stent, it can be retrieved and/or repositioned at up to 90% deployment. The stent is unsheathed from its own delivery microcatheter (Vasco 21; Balt) via pushing the delivery wire and retrieving the microcatheter, allowing for expansion and compensation of foreshortening. It is available in 2–5 mm diameters and in 15–40 mm lengths. The stent is quite flexible but has a relatively lower radial force than other closed cell stents such as the Enterprise, allowing for potential stent migration and even vessel occlusion in stenotic vessels. Adjunctive stenting with other stents with greater radial force is thus sometimes performed [1) 2)].

1)
Kulcsar Z, Houdart E, Bonafe A, et al. Intra-aneurysmal thrombosis as a possible cause of delayed aneurysm rupture after flow-diversion treatment. AJNR Am J Neuroradiol 2011;32:20–5.
2)
Maimon S, Gonen L, Nossek E, et al. Treatment of intra-cranial aneurysms with the SILK flow diverter: 2 years' experience with 28 patients at a single center. Acta Neurochir 2012;154:979–87.