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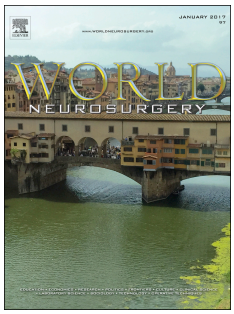

Treatment of a wide-neck bifurcation aneurysm using a “WEB device waffle-cone technique”. Technical note and case report.

Cristian Mihalea, Jildaz Caroff, Aymeric Rouchaud, Sorin Pescariu, Prof., Jacques Moret, Prof., Laurent Spelle, Prof

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INTRODUCTION

The endovascular treatment of wide-neck bifurcation aneurysms is continually improving with the advent of new techniques and devices available on the market.

However, treatment remains challenging even when standard adjunctive techniques[1], such as balloon remodeling [1] or stent-assisted coiling are used.[2]

Therefore, some advanced stenting techniques have been developed, such as Y stent-assisted coiling [2] and waffle-cone assisted coiling [3]. Y stent-assisted coiling consists of the deployment of two overlapping stents in both bifurcation branches to reconstruct the neck of the aneurysm, and to assist coiling. In waffle-cone assisted coiling the terminal aspect of a single stent such as the pCONus (phenox GmbH, Bochum, Germany) or Solitaire AB (Medtronic Neurovascular, Irvine, California, USA) is placed inside the aneurysm to protect the base from coil protrusion during coiling.
Both techniques have some drawbacks and can sometimes be difficult to manage from a technical point of view. When braided stents became available, the Y-stenting technique reached a new level of maturity. Moreover, a hybrid technique involving coiling after the placement of a stent in one bifurcation branch, and then placing a second stent inside the aneurysm in a waffle-cone fashion has been described in a few cases[4].

The development in recent years of intrasaccular flow disrupters such as the WEB device (MicroVention Inc.) [5,6], offer a new feasible solution for the treatment of wide-neck bifurcation aneurysms.

The use of a flow-diverter stent has also been proposed for the treatment of wide-neck bifurcation aneurysms, but currently not all teams agree that this technique is safe, especially in cases of middle cerebral artery (MCA) bifurcation aneurysms.[7,8]
Herein, we describe a new endovascular technique suitable for intracranial wide-neck bifurcation aneurysms, which combines two different techniques: