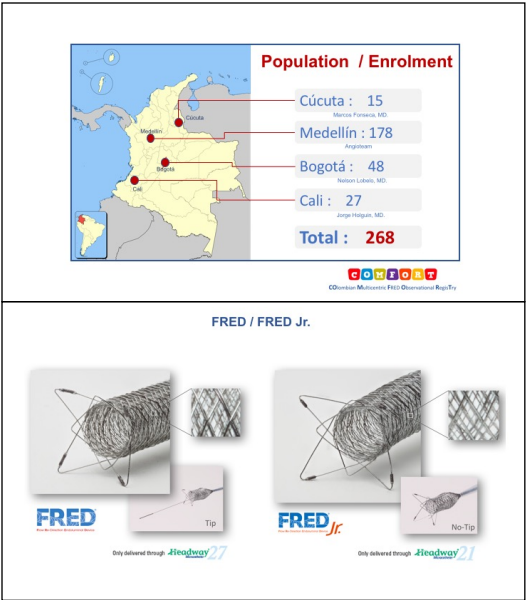


Introduction

Flow-diverting stents, such as the Flow Re-direction Endoluminal Device (FRED; MicroVention, Tustin, California, USA), have emerged as a novel means of treating complex intracranial aneurysms. This observational analysis of the initial Colombian experience provides insight into patient selection, technical challenges, clinical and radiographic outcomes, and complication rates after the use of FRED device for intracranial aneurysms.

Methods

Cases were compiled from 5 Colombian centers between March 2014 and April 2017. We performed a multicenter study evaluating patients with intracranial aneurysms treated with FRED. Technical success, morbidity and mortality were registered.



Results

During the defined study period, 252 patients with 268 aneurysms treated with FRED were included in this registry. Technical success stent deployment observed in all cases with exception of two cases where the operators decided to pull back the device and treated the aneurysms with other strategy. The mean aneurysm size was 12.4 ± 5 mm, and the median angiographic follow-up was 6.5 months. 81 aneurysms (30.2%) were small, 132 (49.2%) were large and 55 (20.5%) were giant. The median clinical follow-up time was 8.2 months. The neurological morbidity rate was 5.2%, and the neurological mortality rate was 2.6%. The most common adverse events were ischemic stroke (5.9%, 15/252) and spontaneous ICH (1.9%, 5/252). The complete occlusion rate at the last follow-up was 87.6% (92/105).

Conclusions

In the largest regional series on FRED for intracranial aneurysms to date, data suggest that treatment with the Flow Re-direction Endoluminal Device is safe and efficacious, with complication rates comparable with others FD available. Our local results are promising but larger series with long-term follow-up are required to determine its superiority.

Learning Objectives

Compare our results with other series using FD.

Introduce Dual layer FD stent results

