Purpose This report details our experience with the Low-profile Visualized Intraluminal Support Junior (LVIS Jr.) device (MicroVention-Terumo, Inc., Tustin, CA), with an emphasis on evolving treatment strategies, feasibility, complication rates and outcomes.

Methods We retrospectively reviewed records of patients treated with the LVIS Jr. device for intracranial aneurysms in Medellin, Colombia.

Results 254 patients with 279 aneurysms underwent aneurysm treatment with LVIS Jr during a 36-month study period. Stent deployment was successful in 100% of cases. 224 aneurysms were treated with stent-assisted coil embolization resulting in immediate complete occlusion in 90% of cases. 55 lesions were treated with stent-alone approach: 21 dissecting, blood blister-like aneurysms treated without coils, and 34 small aneurysms which treatment was planned in stages with further coiling after endothermalization. Imaging follow-up was available for 104 aneurysms. None major recanalization for retreatment was observed. Seventeen patients presented with immediate thrombo-embolic complications (6.6%) and IIB-IIIA GPI administration was necessary. Eight of these strokes were associated with transient deficits, yielding a stroke rate of 3.1%. Six patients died (2.4%) due to clinical conditions, not as direct consequence of stenting. No significant in-stent stenosis, migration, delayed hemorrhage, or permanent deficits were observed. Of those patients with follow-up, a good functional outcome based on the modified Rankin Scale score (mRS < 2) was achieved in 100% of cases.

Conclusion LVIS Jr facilitates the endovascular treatment of complex and wide necked cerebral aneurysms especially for aneurysms involving distal and small vessels. Results are promising in a variety of situations with safety and low rates of complications. Patients with acute SAH due to dissecting or wide-neck ruptured aneurysms can be treated under special considerations.

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