SUPPLEMENTARY MATERIALS

Inclusion & Exclusion Criteria

Patients with wide-necked distal internal carotid artery (ICA) aneurysms (neck width ≥ 4 mm or dome-to-neck ratio < 2) were included in this study. Additional inclusion criteria were patient age ≥ 19 years and ≤ 75 years, aneurysm size < 20 mm, parent vessel diameter ≥ 3 mm and ≤ 4 mm, and feasibility for stent-assisted coil embolization by operator decision. Patients were considered to be “enrolled in the study” with the intention to treat when the Alpha stent (CGBio, Seongnam, Korea) was introduced into the microcatheter during the procedure (irrespective of whether the device was successfully delivered or deployed).

Exclusion criteria were ruptured aneurysm, intracranial tumors, current radiation treatment for head and neck carcinoma or sarcoma, international normalized ratio ≥ 1.5, serum creatinine level > 2.0 mg/dL, any known allergies or contraindications to nickel, titanium, aspirin, clopidogrel, ticlopidine, heparin, contrast agents, or any antithrombotics/anticoagulant agents, known cardiac or other medical disorders likely to be associated with embolic stroke, participation in a device/drug study in the last 30 days, previous intracranial stenting procedure associated with the target aneurysm, pregnancy or breast feeding, inability to complete the required follow-up, or anatomical difficulty with regard to stent placement. Additional angiographic exclusion criteria were fusiform or dissection aneurysms, more than one aneurysm requiring treatment prior to completion of the 6-month follow-up in this study, an aneurysm that was not appropriate for endovascular treatment on cerebral angiogram or was expected to require more than one stent, and arteriovenous malformation in the territory of the target aneurysm.

Patient selection was performed on the basis of the operator’s decision. Patients were considered “enrolled in the study” with the intention to treat when the Alpha stent was introduced into the delivery microcatheter during the procedure (irrespective of whether the device was successfully delivered or deployed).

Exclusion of Patients after Initial Screening

Despite potentially needing stents, six patients were treated using coil-only embolization. In one patient with the ICA aneurysm at the origin of the anterior choroidal artery, endovascular treatment was aborted because we could not preserve the perforator that originated from the neck of the aneurysmal sac during the formation of the coil frame using the semi-jailing technique. In another patient, the parent artery was larger than 4 mm in diameter on intra-procedural angiography and did not meet the inclusion criteria. The remaining two patients were excluded because the use of the Alpha stent was not possible because of failure of stent transfer to the microcatheter, which was caused by poor handing of the delivery system in the early phase of the study.