Procedural Safety and Potential Vascular Complication of Endovascular Recanalization for Chronic Cervical Internal Carotid Artery Occlusion.

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摘要

Abstract

Background— Patients with chronic cervical internal carotid artery occlusion (ICAO) and cerebral ischemia may benefit from revascularization. The feasibility of endovascular recanalization for chronic ICAO has been reported recently, but its safety is still unproven. We report the follow-up results of 54 chronic ICAO patients who underwent endovascular recanalization, focusing on potential vascular complications and corresponding management.

Methods and Results— Endovascular recanalization for chronic ICAO was attempted in 54 consecutive patients (48 men; 69.2±9.8 years old) with either recurrent neurological deficit or objective ipsilateral hemisphere ischemia. Mean duration from occlusion documentation to the procedure was 237±327 days (range, 56 to 1424 days). Adverse events while in the hospital and during the 3-month follow-up were recorded. Successful recanalization was achieved in 35 of 54 patients (65%). Three-month cumulative stroke and death rate was 4% (2 of 54), including 1 in-hospital fatal nonipsilateral stroke and 1 in-hospital minor ipsilateral stroke secondary to systemic hypotension. Vascular complications developed in 3 of 54 patients (6%), including 1 late pseudoaneurysm formation 3 months after recanalization, 1 immediate carotid-cavernous fistula after recanalization, and 1 minor extravasation at carotid bifurcation after failed recanalization. However, no clinical sequela was noted with close follow-up and adequate management.

Conclusion— Certain immediate or delayed vascular complications may develop during or after the endovascular recanalization for chronic ICAO. Although periprocedural death and stroke rate is limited in our study, further study combining

neuroimaging tools and cognitive function evaluation is mandatory to assess its utility and appropriateness in patients with chronic ICAO.