

EFFECT OF CAROTID ARTERY STENTING ON COGNITIVE FUNCTION IN PATIENTS WITH INTERNAL CAROTID ARTERY STENOSIS

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Carotid artery stenting (CAS) is an important therapeutic strategy for patients with carotid artery stenosis. High-grade stenosis of the internal carotid artery is associated with cognitive impairment and decline, even in asymptomatic patients. However, the potential influence of CAS on cognitive function in patients with carotid artery stenosis has not been determined. The aim of this study was to investigate the influence of carotid artery stenting (CAS) on the global cognition in patients with high grade internal carotid stenosis, on various cognitive domains and potential factors that may affect changes of cognitive function in these patients.

This study involved 25 patients with symptomatic and asymptomatic carotid artery stenosis and 25 healthy controls. Patients were evaluated 1 day before procedure and 3 months after procedure. Montreal cognitive assessment (MoCA) was used for the evaluation of cognition.

The MoCA scores of the patients before CAS were significantly lower than that of the control subjects. These scores were significantly higher 3 months after CAS. Also significantly improved after CAS from baseline were scores for an attention, executive functions and memory.

CAS can improve global cognitive function, attention, executive functions and memory in symptomatic and asymptomatic patients with high grade carotid artery stenosis. High cholesterol levels is independent risk factor for deteriorated cognitive functions before revascularization and low educational level is independent factor for poor cognitive performance after revascularization.

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