

COMPARISON OF PROXIMAL AND DISTAL PROTECTION FOR CAROTID ARTERY STENTING: A SINGLE-CENTER EXPERIENCE

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BACKGROUND

In multicenter registries the carotid artery stenting (CAS) with the use of proximal cerebral protection demonstrate lower rates of stroke than that with the use of distal cerebral protection. But the choice of the type of embolic protection for CAS is still controversial.

OBJECTIVE

We evaluated short-term outcomes of carotid stenting with distal and proximal cerebral protection in real world settings.

METHODS

A retrospective analysis of 876 consecutive carotid artery stenting procedures at a single center during the period from 1 January 2008 to 1 September 2016 was performed. All procedures were divided into 2 groups depending on type of embolic protection: the first one – the group of CAS with distal filters (124 procedures), the second one – carotid intervention with proximal protection (752 procedures). All patients had neurological assessment before and after the procedure. The study primary endpoints included any stroke, myocardial infarction, all-cause death and the composite of them at 30 days.

RESULTS

During 30 days after intervention 4/124 (3.2%) patients in the first group and 9/752 (1.2%) patients in the second group had at least one major adverse cardiovascular or cerebrovascular event (OR: 2.75; 95% CI: 0.8-9.1; p=0.098). There was significant difference between types of embolic protection for symptomatic lesions in the incidence of the composite endpoint at 30 days after intervention (OR: 4.4; 95% CI: 1.2-15.7; p=0.036).

CONCLUSION

Stenting of symptomatic extracranial ICA lesions with the use of proximal cerebral protection demonstrates lower rates of major adverse cardiovascular and cerebrovascular events within 30 days after intervention comparing with distal protection.