Encephaloduroarteriosynangiosis for atherosclerotic middle cerebral artery occlusion

Encephaloduroarteriosynangiosis (EDAS) as a form of indirect revascularization has been recently proposed as a potentially promising alternative for patients with intracranial atherosclerotic disease (ICAD). The object of a study was to compare the prognostic roles between isolated EDAS and medical therapy in patients with atherosclerotic middle cerebral artery occlusion (MCAO).

From January 2014 to June 2017, 125 patients with atherosclerotic MCAO were enrolled in this prospective non-randomized controlled cohort study. Patients who underwent EDAS (n = 60) were compared with those treated medically (n = 65). Early and late adverse events and functional outcomes including memory ability were compared between groups.

During 23.7 months of mean follow-up, rates of adverse events, including ischemic events in the territory of the qualifying middle cerebral artery (MCA), and death from any causes, were not significantly different in patients treated with EDAS and with medical therapy (6.7% vs. 12.3%; p=0.285). Landmark analyses revealed that at initial 6-month follow-up, there was no significant difference for adverse event rates, while the opposite finding was demonstrated for the subsequent period (EDAS 1/57 [1.7%] vs. medical management 7/64 [10.9%]; p=0.024). And the P value for the interaction between time (first 6 months vs. subsequent period) was 0.044. No significant differences were found with the respect to neural function status and cognitive ability.

In the long-term, isolated EDAS can be considered effective and safe for patients with atherosclerotic MCAO, whereas it may need additional medical therapy support in the short-term [1)].

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Zhang Q, Li Y, Tong H, Wu X, Wang Y, Ge W, He C, Liu R, Yu S. Comparison of therapeutic efficacy between isolated encephaloduroarteriosynangiosis and medical treatment in patients with atherosclerotic middle cerebral artery occlusion. World Neurosurg. 2018 Jun 20. pii: S1878-8750(18)31272-5. doi: 10.1016/j.wneu.2018.06.057. [Epub ahead of print] PubMed PMID: 29935318.