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From the Editorial board

Brain revascularization, a relevant procedure?

The brain revascularization procedure was reported in our review following the techniques detailed in the Giant Aneurysm monograph [1]. Here, Aboukais et al. published a paper entitled "superficial temporal artery – middle cerebral artery anastomosis patency correlates with cerebrovascular reserve in adult Moyamoya syndrome patients" [2]. Analyzing the fate of the cerebrovascular reserve after anastomosis, the authors reported their surgical strategy of additive revascularization in Moyamoya syndrome. The 10 adult patients in the cohort, with an average age of 44, had Moyamoya syndrome. Treated according to a surgical protocol of end-lateral anastomosis of the superficial temporal artery on a branch of the middle cerebral artery, they were followed for 24 months. After an average occlusion time of 55 min (range 33–85 min) of the recipient artery, 9 of the anastomoses were functional at 12 months. The modified ranking scale at 3 months remained stable in 8 patients and increased from 1 to 2 in 2 patients. The cerebrovascular reserve was improved in 8 of the 10 patients without new stroke at 2 years in all patients. The authors, assisted by a rigorous follow-up protocol, showed the effectiveness of permeable anastomoses on the improvement of the cerebrovascular reserve. The evaluation of the cerebrovascular reserve remains a variable technique tool according to the centers providing relative values using acetazolamide intake.

The authors should be commended for showing this type of direction for these adult patients with Moymoya whose diagnosis is becoming more common. This improvement of the cerebrovascular reserve, after cerebral revascularization of addition, is also observed in patients with steno-occlusive encephalopathy [3] leading some to question the relevance of such procedures in acute forms [4].

Cerebral revascularization procedures are part of the arsenal of vascular neurosurgery. We must confront it, progress during workshops, or through essential readings (*Seven bypasses*, *Tenets and techniques for revascularization* by MT Lawton, editors Thieme, 2019) but the indications remain the object of a robust evaluation, protocolized, and integrated into a multidisciplinary management involving our neurovascular neurologist colleagues and interventional neuroradiologists. Their long-term clinical evaluation is starting to be known, characterized by a reduction in the incidence of strokes but we must progress on the subject, we should within the vascular section of the French society of neurosurgery think about the establishment of a registry focusing on brain revascularizations.

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