Letter by Zhou et al Regarding Article, “Residual High-Grade Stenosis After Recanalization of Extracranial Carotid Occlusion in Acute Ischemic Stroke”

To the Editor:

Luitse et al demonstrated their excellent work of investigating the residual stenosis rate after recanalization of acute symptomatic extracranial occlusion of the internal carotid artery (ICA). The study found that 16.3% of the patient with occlusive extracranial ICA had residual high-grade stenosis after recanalization, which might be the indication for early intervention.

In the article, acute recanalization modalities included intravenous recombinant tissue-type plasminogen activator (47 patients) and endovascular treatment (11 patients). Residual high-grade stenosis ($\geq 70\%$) or near occlusion was found in 17 patients, and 8 patients were later treated with carotid endarterectomy during follow-up. In our experiences, acute carotid artery stenting is often performed if the patient with extracranial ICA occlusion still presents with residual high-grade stenosis on digital subtraction angiography after endovascular treatment (sometimes bridging therapy). The Multicenter Randomized Clinical Trial of Endovascular Treatment for Acute Ischemic Stroke in the Netherlands (MR CLEAN) study has demonstrated that endovascular treatment administered within 6 hours after stroke onset was effective and safe for proximal intracranial arterial occlusion, of which 87.1% patients in the intervention group were treated with intravenous recombinant tissue-type plasminogen activator before. Although $\approx 30\%$ patients were accompanied with an additional extracranial ICA occlusion, the MR CLEAN study was focused on proximal intracranial arterial occlusion. As we will see more endovascular and even bridging therapy in the next few years, it is still unclear about the acute management for acute extracranial ICA occlusion. In general, residual high-grade stenosis or dissection often presents after endovascular treatment of extracranial ICA occlusion (cardiac embolism is often not big enough to cause the occlusion). And also acute carotid artery stenting after bridging therapy may lead to dilemma about the timing of dual antiplatelet treatment. We think that more evidences are needed on the optimal treatment modality for these patients.

Disclosures

None.

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