Supplementary Material

**Subanalysis of patients with an initial ASPECTS of 4-5 (n=78)**

In this subanalysis, the median ASPECTS was not different between patients with persistent large vessel occlusion and vessel recanalization (median 5; IQR, 4-5 in both groups; p=0.11). The mean age was not significantly different as well (70 years versus 73 years, p=0.17).

In patients with an ASPECTS of 4-5, vessel recanalization was independently associated with lowered water uptake (ΔNWU 8.5% lower compared to persistent vessel occlusion; 95% CI: 5.7-11.3%; p<0.001), adjusted for age, sex, and NIHSS (Multivariable linear regression analysis, Supplementary Figure 1).

Correspondingly, vessel recanalization in these patients was associated with a lowered mRS score of 1.6 (95%CI: 0.8-2.4; p<0.001), adjusted for ΔNWU, age, sex, and NIHSS (Supplementary Figure 2).

In conclusion, the results of this subanalysis show that in stroke patients with a homogenous distribution of low ASPECTS (4 and 5), vessel recanalization has an effect on edema progression with reduced ischemic brain water uptake on early follow-up. This result was directly related to favorable effects on clinical endpoints with improved mRS.
Supplementary Figure 1 – Impact of vessel recanalization on quantitative lesion water uptake

Impact of vessel recanalization on edema formation ($\Delta$NWU, y-axis) in relation to age (x-axis).

Supplementary Figure 2 – Impact of vessel recanalization on functional outcome

Impact of vessel recanalization on functional outcome using modified Rankin Scale scores after 90 days (mRS, y-axis) in relation to age (x-axis).