Emergent vs. elective stenting of carotid stenosis with intraluminal carotid thrombus

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BACKGROUND AND PURPOSE
Carotid stenosis (CS) with intraluminal carotid artery thrombus (ICAT) is rare but ominous finding. The optimal treatment modality is unclear. The aim of this study was to analyze the feasibility and outcome of acute endovascular intervention and delayed elective endovascular therapy after initial anticoagulation in these delicate cases. Moreover, both treatment points were compared and several parameters discussed to facilitate the determination of the optimal time modality in future cases.

MATERIALS AND METHODS
A series of 11 consecutive cases with acute symptomatic CS with ICAT that received endovascular treatment was retrospectively analyzed. General patient data, pre and post-interventional symptoms and imaging were evaluated in an overall mean follow-up of 84 weeks.

RESULTS
Urgent stenting and mechanical thrombectomy was performed in 6 patients. In the remaining 5 cases, elective endovascular treatment was planned after initial anticoagulation therapy with thrombus resolution. One case received secondary urgent treatment due to clinical deterioration. Overall outcome at three months follow-up was excellent (Modified Ranking Scale [mRS] 0-1) in 5 cases, good (mRS 2) in 4 and unfavorable in the remaining 2. Important differences between the two treatment arms were seen in 3 parameters (stenosis degree, thrombus length, and NIHSS score).

CONCLUSIONS
This is one of the largest studies analysing endovascular treatment in patients with acute symptomatic CS and additional ICAT only. Both endovascular treatment strategies seem feasible. Parameters such as size of intraluminal thrombus and clinical symptoms should be included in the decision-making process regarding the optimal individual treatment time.