Risk of very early recurrent cerebrovascular events in symptomatic carotid artery stenosis.

The risk of recurrence of cerebrovascular events within the first 72 hours of admission in patients hospitalized with symptomatic carotid artery (CA) stenoses and the risks and benefits of emergency CA intervention within the first hours after the onset of symptoms are not well known. Therefore, the authors aimed to assess (1) the ipsilateral recurrence rate within 72 hours of admission, in the period from 72 hours to 7 days, and after 7 days in patients presenting with nondisabling stroke, transient ischemic attack (TIA), or amaurosis fugax (AF), and with an ipsilateral symptomatic CA stenosis of 50% or more, and (2) the risk of stroke in CA interventions within 48 hours of admission versus the risk in interventions performed after 48 hours. Ninety-four patients were included in this study. These patients were admitted to hospital within 48 hours of a nondisabling stroke, TIA, or AF resulting from a symptomatic CA stenosis of 50% or more. The patients underwent carotid endarterectomy (85 patients) or CA stenting (9 patients). At baseline, the cardiovascular risk factors of the patients, the degree of symptomatic CA stenosis, and the type of secondary preventive treatment were assessed. The in-hospital recurrence rate of stroke,
TIA, or AF ipsilateral to the symptomatic CA stenosis was determined for the first 72 hours after admission, from 72 hours to 7 days, and after 7 days. Procedure-related cerebrovascular events were also recorded. The median time from symptom onset to CA intervention was 5 days (interquartile range 3.00-9.25 days). Twenty-one patients (22.3%) underwent CA intervention within 48 hours after being admitted. Overall, 15 recurrent cerebrovascular events were observed in 12 patients (12.8%) in the period between admission and CA intervention: 3 strokes (2 strokes in progress and 1 stroke) (3.2%), 5 TIAs (5.3%), and 1 AF (1.1%) occurred within the first 72 hours (total 9.6%) of admission; 1 TIA (1.1%) occurred between 72 hours and 7 days, and 5 TIAs (5.3%) occurred after more than 7 days. The corresponding actuarial cerebrovascular recurrence rates were 11.4% (within 72 hours of admission), 2.4% (between 72 hours and 7 days), and 7.9% (after 7 days). Among baseline characteristics, no predictive factors for cerebrovascular recurrence were identified. Procedure-related cerebrovascular events occurred at a rate of 4.3% (3 strokes and 1 TIA), and procedures performed within the first 48 hours and procedures performed after 48 hours had a similar frequency of these events (4.5% vs. 4.1%, respectively; p = 0.896). The in-hospital recurrence of cerebrovascular events was quite low, but all recurrent strokes occurred within 72 hours. The risk of stroke associated with a CA intervention performed within the first 48 hours was not increased compared with that for later interventions. This raises the question of the optimal timing of CA intervention in symptomatic CA stenosis. To answer this question, more data are needed, preferably from large randomized trials.