

Study of vascular recurrence in patients with TIA followed in a daily TIA clinic

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Introduction: Several studies have shown high risk of stroke after transient ischemic attack (TIA). A previous study based on a weekly TIA Clinic showed a lower risk of stroke than described in other settings. Selection bias could be an explanation for underestimation of the risk by a weekly TIA clinic.

Objectives: To evaluate the stroke and vascular events recurrence in a daily TIA clinic, and compare it with those of a weekly TIA Clinic.

Methods: We performed a prospective cohort study of consecutive patients referred to a daily TIA Clinic from October 2009 to October 2010, to the Neurology Service of Hospital de Santa Maria. Standard clinical assessment and data were registered in a database (demographic, vascular risk factors, clinical presentation of TIA, examination, diagnostic tests, and treatments). Follow-up was obtained at outpatient visit or by phone questionnaire, to assess 30th day recurrence of vascular events. The data was compared with previous results from the same TIA clinic, previously weekly, from March 2004 to October 2009. The primary outcome was to analyse the frequency of stroke at 30 days after the TIA in daily TIA clinic and compare with that of the weekly TIA clinic. The secondary outcome was to evaluate the frequency of recurrent vascular events at 30 days (TIA, stroke, myocardial infarction, vascular death) in the daily vs. weekly TIA clinic. We used chi-square statistics, t-student test or Mann-Whitney to compare the variables between the two groups of patients.

Results: During the inclusion period, 168 patients were referred to the daily TIA clinic. 142 patients had neurological signals lasting less than 24 hours, and 63 patients fulfilled the diagnosis of TIA. To the weekly TIA clinic were referred 457 patients with transient neurological signals lasting less than 24 hours: 258 with the diagnosis of TIA. Mean delay from the TIA and TIA Clinic was significantly lower in the daily TIA clinic than in the weekly TIA clinic (2.2 days vs. 8.6 days, $p < 0,001$). The mean age of patients, vascular risk factors, and clinical characteristics and severity were similar. Most of the stroke events occurred during the first days after the TIA. We noticed a slightly non-significant trend of stroke recurrence during the first 30 days after TIA in the daily TIA clinic patients [5 (8.3%) vs. 8 (3.2%), $p = 0.159$]. There were no differences in the risk of recurrent vascular events during the first 30 days after TIA [5 (8,3%) vs. 25 (10,1%), $p = 0,682$].

Conclusions: The risk of stroke after TIA is higher in the first days. The low frequency of stroke recurrence in the weekly TIA Clinic could have been due to the non inclusion of patients with early recurrences. These results have implications for service provision and public education about TIA. Further multicenter studies need to be done to define the true vascular risk after TIA and the effect of treatments in their prevention.