

ORIGINAL ARTICLE

One-Year Risk of Stroke after Transient Ischemic Attack or Minor Stroke

Pierre Amarenco, M.D., Philippa C. Lavallée, M.D., Julien Labreuche, B.S.T., Gregory W. Albers, M.D., Natan M. Bornstein, M.D., Patrícia Canhão, M.D., Louis R. Caplan, M.D., Geoffrey A. Donnan, M.D., José M. Ferro, M.D., Michael G. Hennerici, M.D., Carlos Molina, M.D., Peter M. Rothwell, M.D., Leila Sissani, B.S.T., David Školoudík, M.D., Ph.D., Philippe Gabriel Steg, M.D., Pierre-Jean Touboul, M.D., Shinichiro Uchiyama, M.D., Éric Vicaut, M.D., and Lawrence K.S. Wong, M.D., for the TIARegistry.org Investigators*

ABSTRACT

BACKGROUND

Previous studies conducted between 1997 and 2003 estimated that the risk of stroke or an acute coronary syndrome was 12 to 20% during the first 3 months after a transient ischemic attack (TIA) or minor stroke. The TIARegistry.org project was designed to describe the contemporary profile, etiologic factors, and outcomes in patients with a TIA or minor ischemic stroke who receive care in health systems that now offer urgent evaluation by stroke specialists.

METHODS

We recruited patients who had had a TIA or minor stroke within the previous 7 days. Sites were selected if they had systems dedicated to urgent evaluation of patients with TIA. We estimated the 1-year risk of stroke and of the composite outcome of stroke, an acute coronary syndrome, or death from cardiovascular causes. We also examined the association of the ABCD² score for the risk of stroke (range, 0 [lowest risk] to 7 [highest risk]), findings on brain imaging, and cause of TIA or minor stroke with the risk of recurrent stroke over a period of 1 year.

RESULTS

From 2009 through 2011, we enrolled 4789 patients at 61 sites in 21 countries. A total of 78.4% of the patients were evaluated by stroke specialists within 24 hours after symptom onset. A total of 33.4% of the patients had an acute brain infarction, 23.2% had at least one extracranial or intracranial stenosis of 50% or more, and 10.4% had atrial fibrillation. The Kaplan–Meier estimate of the 1-year event rate of the composite cardiovascular outcome was 6.2% (95% confidence interval, 5.5 to 7.0). Kaplan–Meier estimates of the stroke rate at days 2, 7, 30, 90, and 365 were 1.5%, 2.1%, 2.8%, 3.7%, and 5.1%, respectively. In multivariable analyses, multiple infarctions on brain imaging, large-artery atherosclerosis, and an ABCD² score of 6 or 7 were each associated with more than a doubling of the risk of stroke.

CONCLUSIONS

We observed a lower risk of cardiovascular events after TIA than previously reported. The ABCD² score, findings on brain imaging, and status with respect to large-artery atherosclerosis helped stratify the risk of recurrent stroke within 1 year after a TIA or minor stroke. (Funded by Sanofi and Bristol-Myers Squibb.)

The authors' affiliations are listed in the Appendix. Address reprint requests to Dr. Amarenco at the Department of Neurology and Stroke Center, Bichat Hospital, 46 rue Henri Huchard, 75018 Paris, France, or at pierre.amarenco@aphp.fr.

*A complete list of the TIARegistry.org investigators is provided in the Supplementary Appendix, available at NEJM.org.

N Engl J Med 2016;374:1533–42.

DOI: 10.1056/NEJMoa1412981

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