

Effect of coexisting vascular disease on long-term risk of recurrent events after TIA or stroke

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Study objective and summary result

This study examined whether patients with TIA or ischemic stroke (IS) who have cardiovascular comorbidities remain at high risk of recurrent ischemic events under current clinical management practices, and it found that such patients remain at high risk of recurrent ischemic events.

What is known and what this paper adds

Patients with TIA or IS who have cardiovascular comorbidities have had historically high risks of recurrent stroke. This investigation shows that such patients remain at high risk of recurrent stroke despite major advances in areas such as antiplatelet and lipid-lowering therapies in recent decades.

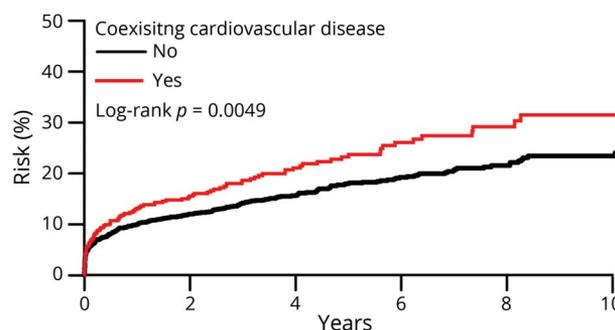
Participants and setting

This investigation used data from the Oxford Vascular Study (OXVASC), which follows individuals treated by 100 family physicians affiliated with 9 general practices in Oxfordshire. These analyses focused on 2,555 individuals in the OXVASC database who experienced a first-ever TIA or IS between April 2002 and March 2014. The follow-up period extended to September 2014.

Design, size, and duration

Patients with TIA or IS received standard secondary prevention therapy according to contemporary guidelines. Demographic and clinical data for the OXVASC database were prospectively collected through interviews and chart reviews, and the investigators reviewed the available clinical data to identify patients with cardiovascular comorbidities. Recurrent vascular events in the OXVASC participants were detected through 1-, 6-, 12-, 60-, and 120-month follow-up assessments and through monitoring of death records. Kaplan-Meier analyses were used to evaluate associations between cardiovascular comorbidities and 10-year risks of recurrent vascular events.

Figure Longitudinal risks of recurrent IS in patients with and without cardiovascular comorbidities



Main results and the role of chance

Cardiovascular comorbidities were identified in 640 individuals (25.0%). Over 9,148 patient-years of follow-up, 413 cases of recurrent IS were noted. Patients with cardiovascular comorbidities had greater 10-year risks of recurrent IS than patients without cardiovascular comorbidities did ($p = 0.0049$).

Bias, confounding, and other reasons for caution

Not all patients took secondary prevention medications.

Generalizability to other populations

The OXVASC participants were predominantly white Britons. This may limit the generalizability of the results.

Study funding/potential competing interests

This study received no direct funding, but OXVASC is funded by the UK National Institute for Health Research, the Wellcome Trust, the Wolfson Foundation, and the British Heart Foundation. The authors report no competing interests. Go to Neurology.org/N for full disclosures.

A draft of the short-form article was written by M. Dalefield, a writer with Editage, a division of Cactus Communications. The authors of the full-length article and the journal editors edited and approved the final version.

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