

Is Stroke Risk in Patients with Transient Ischemic Attack Decreasing?

Data from the Framingham Study suggest that modern medical treatment helps.

Transient ischemic attacks (TIAs) are a well-recognized precursor to a potential ischemic stroke. Whether the short-term and long-term risks for stroke following TIA have decreased in recent decades has not received much study. Investigators from the Framingham Study have now evaluated these risks in a large database of participants dating back to 1948. Regular surveillance for stroke occurred, and investigators evaluated stroke at various time points (7 days, 30 days, 90 days, and up to 10 years). Those with incident TIA were matched to TIA-free participants in a 1:5 ratio.

Overall, during 66 years of follow-up, the TIA incidence rate was 1.19/1000 person-years. Participants with a TIA had an approximately fivefold higher rate of stroke than TIA-free participants. During a mean of 8.9 years after the TIA, 30% of participants with TIA had a stroke. Of these 130 stroke events, 28 (22%) occurred within 7 days and 51 (39%) occurred within 90 days; 48.5% occurred more than 1 year after the TIA. The median time to stroke occurrence was 1.6 years. The investigators also compared stroke rates in three time periods: up to 1985, 1986–1999, and 2000–2017. In these three epochs, the 90-day rate of stroke after TIA decreased from 16.7% to 11.1% to 5.9%. Compared with the earlier epochs, in the most recent epoch the smoking rate in those with TIA was lower (24% entire study vs. 14% most recent epoch) but diabetes and atrial fibrillation rates were higher.

COMMENT

This comprehensive study provides confirmation that TIA is a major harbinger of stroke; the symptoms should not be ignored. In addition, the analysis of temporal trends provides excellent news, suggesting that modern medical treatments (antiplatelet therapy, statins, etc.) have reduced the 90-day stroke rate by more than half compared with earlier time periods. Clinicians should strive for rapid TIA diagnosis and implementation of evidence-based treatments. — **Seemant Chaturvedi, MD**

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