Evidence Supports Concern Over Nonfocal TNAs

BY HEIDI SPLETE
Senior Writer

Adults who suffered transient neurological attacks with nonfocal symptoms were at increased risk of developing major vascular disease and dementia in a study of more than 6,000 adults aged 55 years and older.

The findings challenge the perception that nonfocal transient neurological attacks (TNAs) are harmless. "TNAs with nonfocal symptoms were almost as frequent as focal TNAs, and had an equally unfavorable overall subsequent clinical course with a slightly higher risk of stroke and a higher risk of vascular dementia than persons without TNA," the investigators wrote.

The authors defined TNA as an episode of neurological dysfunction lasting less than 24 hours (usually from 2 to 15 minutes). Although focal TNAs (better known as transient ischemic attacks or TIAs) have been characterized, a variety of diagnoses have been applied to nonfocal and mixed TNAs (focal and nonfocal symptoms in the same attack). Focal and mixed TNAs are often considered benign and have not been well studied, Dr. Michiel J. Bos of Erasmus University Medical Centre in Rotterdam, the Netherlands, and colleagues, noted.

'Even though TNA is likely to be only of transient utility ... [it] should be considered a rally cry for more extensive evaluation or consultation.'

To study the incidence and prognosis of each of these three types of TNAs, the investigators followed 6,062 community-dwelling adults with no history of stroke, myocardial infarction, or dementia. The participants were part of the Rotterdam Study, an ongoing population-based cohort study. The subjects enrolled between 1990 and 1993 and were followed until Jan. 1, 2005. The median age of the patients at baseline was 68 years, and 3,758 (62%) were women (JAMA 2007;298:2877-85).

A total of 548 individuals experienced TNAs during the study period of 60,535 person-years. Categorized by their symptoms, 282 TNAs were considered focal, 228 were nonfocal, and 38 were mixed.

Overall, focal and nonfocal TNAs occurred with similar frequency, with incidence rates of 4.7 per 1,000 person-years and 3.8 per 1,000 person-years, respectively. The incidence rates for both types increased with age. The incidence rate for mixed TNAs was much lower—0.6 per 1,000 person years—and the incidence was not clearly associated with age.

Those who met criteria for focal TNAs had a higher risk of subsequent stroke (hazard ratio, 2.14) than did those without TNA, after adjustment for age and sex, but there was no observable difference in the risk for MI or dementia.

The participants with nonfocal TNAs were at greater risk of both stroke (HR, 1.56) and dementia (HR, 1.59), compared with subjects without TNAs. And they were at especially high risk for vascular dementia (HR, 5.05). There was no difference in risk for MI in this subgroup.

Those with mixed TNAs also were at increased risk of stroke (HR, 2.48), ischemic heart disease (HR, 2.26), vascular death (HR, 2.54), and dementia (HR, 3.46), compared with individuals who didn't experience TNAs. Notably, the risk of vascular dementia was much higher among those with mixed TNAs (HR, 21.5).

The clinical implication of the findings is that nonfocal TNAs deserve to be taken seriously, according to Dr. S. Claiborne Johnston, a neurologist at the University of California, San Francisco, who wrote an accompanying editorial (JAMA 2007;298:2912-3).

"The study argues that, whatever is causing these events, the prognosis justifies greater attention," Dr. Johnston noted. "Even though TNA is likely to be only of transient utility because clinicians must quickly move to more specific diagnoses to provide appropriate treatment for patients, this entity should be considered a rally cry for more extensive evaluation or consultation in these patients, as well as for further research," he wrote.

None of the researchers or Dr. Johnston reported any financial conflicts related to this study. ■