nontoxic symptoms were almost as fre-quent 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 investi-gators wrote. The authors defined TNA as an episode of neurological dysfunction lasting longer than 24 hours (usually from 2 to 10 days).

Although focal TNAs (better known as transient ischemic attacks or TIA’s) have been characterized, a variety of diag-noses have been applied to nontoxic and mixed TNAs (focal and nontoxic symp-toms in the same attack). Focal and mixed TNAs are generally considered benign and have not been well studied. Dr. Michael J. Bos of Erasmus University Medical Cen-ter in Rotterdam, the Netherlands, and colleagues wrote:

To study the incidence and prognosis of each of these three types of TNA, the in vestigators 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 co-hort 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 7,785 (62%) were women (JAMA 2007;298:2877-85).

A total of 548 individuals experienced TNAs during the study period of 60,335 person-years. Categorized by their symp-toms, 282 TNAs were considered focal, 228 were nontoxic, and 38 were mixed.

Overall, focal and nontoxic TNAs oc-curred with similar frequency, with inci-dence rates of 4.7 per 1,000 person-years and 3.8 per 1,000 person-years, respecti-vely. 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 for mixed TNAs was not clear.

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

The participants with nontoxic 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 dif-ference in risk for MI in this subgroup.

Those with mixed TNAs also were at in-creased risk of stroke (HR, 2.48), ischemic heart disease (HR, 2.26), vascular death (HR, 2.54), and dementia (HR, 3.46), com-pared with individuals who didn’t experi-ence TNAs. Notably, the risk of vascular dementia was much higher among those with mixed TNAs (HR, 21.5).

The clinical implications were that focal TNAs deserve to be taken seriously, Dr. S. Claiborne Johnston, a neurologist at the University of California, San Francisco, wrote in an accompanying editorial (JAMA 2007;298:2912-3).

“The study argues that, whatever is causing these events, the prognosis justi-fies greater attention,” according to Dr. Johnston.

“Even though TNA is likely to be only of transient utility because clinicians must quickly move to more specific diagnoses to provide appropriate treatment, par-ents, this entity should be considered a rally cry for more extensive evaluation or consultation in these patients, as well as for further research.”

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