Migraine With Aura Linked to Higher CHD Risk

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SAN DIEGO — Healthy women aged 45 years and older who have migraine with aura have a significantly increased risk of coronary heart disease, myocardial infarction, coronary revascularization, and angina, results from the largest study of its kind demonstrated.

On the other hand, migraine without aura was not associated with any such outcome, Dr. Tobias Kurth reported at the annual meeting of the American Academy of Neurology.

"Since migraine without aura is far more common than migraine with aura, for most migraine patients our data indicate no increased risk for coronary heart disease," said Dr. Kurth of the division of preventive medicine at Brigham and Women's Hospital, Boston. And, "since the precise mechanism by which migraine may lead to coronary heart disease is currently unknown, it likely reflects future research focus on potential biological explanations."

Patients may need to modify their risk factors. On a long-term basis it may be possible to do so through strategies that include taking aspirin or folate.

Dr. Richard B. Lipton, who was invited to discuss the work, said the findings warrant being vigilant for coronary heart disease (CHD) risk factors in all patients who have migraine with aura.

This would include working with patients to modify CHD risk factors "and to acknowledge that those risk factors are more powerful than migraine with aura itself," noted Dr. Lipton, vice chair of neurology at Albert Einstein College of Medicine, New York. "On a long-term basis it may be possible to devise risk factor modification strategies that might include aspirin or folate."

In a study funded by the National Institutes of Health, Dr. Kurth and his associates followed 27,840 women aged 45 years and older who were enrolled in the Women's Health Study. All study participants were free of cardiovascular disease at baseline.

The researchers used a Cox proportional hazards model to evaluate the association between migraine and risk of subsequent CHD and angina, while adjusting for several cardiovascular risk factors including age, blood pressure, smoking status, body mass index, alcohol consumption, and exercise habits. The average follow-up was 10 years.

In the baseline questionnaire study, participants were asked if they ever had a migraine, and if they had a migraine in the previous year. "If the woman answered yes to the latter question, we asked further details about her migraine, including a question about aura," Dr. Kurth said.

Women who did not report migraine served as the referent group. At baseline, 5,125 (18%) reported a history of migraine and 3,610 (13%) reported current migraine. Of those who reported current migraine, 1,434 (40%) reported aura. During 10 years of follow-up, 625 coronary heart disease events and 408 angina events occurred.

Compared with women who reported no history of migraine, women who reported migraine with aura had a 1.7-fold increased risk for CHD; a 2-fold increased risk for myocardial infarction; a 1.7-fold increased risk for coronary revascularization, and a 1.7-fold increased risk for angina. On average, the risk for all of these factors reached statistical significance in the sixth year of follow-up, said Dr. Kurth, also of Harvard Medical School, Boston. Migraineurs without aura had no increased risk for any of the outcome events.

"Our study has several strengths, including its large number of participants, long follow-up, prospective design, use of a standardized questionnaire, and the rigorous nature of the cohort," Dr. Kurth said. "All outcome events were confirmed [after medical record review] with the exception of angina."

Study imitations were that migraine with aura was self-reported and that there was no information on migraine-specific drug use. "With regard to generalizability, all women were age 45 or older, health professionals, and mostly white," he added. "However, based on current knowledge, it's unlikely that the association between migraine and coronary heart disease is different in other female populations." ■