

Migraine with aura linked to clot-caused strokes

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People who have migraines with aura are more likely to have strokes caused by either a blood clot in the heart (cardio-embolic stroke) or a clot within the brain's blood vessels (thrombotic stroke), compared to those that don't have migraines with aura, according to research presented at the American Stroke Association's International Stroke Conference 2016.

Some people with migraines experience neurological symptoms ([aura](#)) such as flashes of light, blind spots, or tingling in the hand or face. In adults, symptoms usually happen before the headache itself. Migraines with aura account for less than 20 percent of all migraines, researchers said.

In a 25-year ongoing study of 12,844 adults (age 45-64) in four U.S. communities, 817 participants were identified as having an ischemic stroke (clot or a mass clogs a blood vessel, cutting off the blood flow to brain cells).

When they compared [migraine](#) with aura patients to those who had migraine without aura, researchers found:

Overall, migraine with aura patients were 2.4 times more likely to have an ischemic stroke.

Migraine with aura patients were three times more likely to have an ischemic stroke caused by a mass or a clot that forms in the heart, dislodges and travels to the brain (cardio-embolic stroke).

Migraine with aura patients were twice as likely to have an ischemic stroke caused by a clot that develops in a clogged part of the blood vessel supplying blood to the brain (thrombotic stroke).

There was no significant association between migraine with aura and ischemic stroke caused by blockage of small arteries that supply blood to deep brain structures (lacunar stroke).

Since migraines alter the blood vessels in the brain, the greater incidence of strokes caused by blood clots in the heart or the brain's blood vessels suggests that migraine also affects blood vessels in the heart and neck. That's what possibly leads to these specific subtypes of stroke, said Souvik Sen, M.D., M.P.H., study author and a neurologist at the University of South Carolina School of Medicine in Columbia, South Carolina.

"If we are going to prevent people with migraines with aura from having a stroke, it's important to know what types of stroke they're having and then be vigilant about it," Sen said.

Ischemic stroke accounts for about 87 percent of all stroke cases in the U.S. There are three major subtypes of ischemic strokes: thrombotic strokes, cardio-embolic strokes and lacunar stroke. Previous studies have shown a link between migraine with aura and ischemic strokes, but this is the first study to look at subtypes associated with migraine with aura, Sen said.

Researchers also noted that strokes linked to migraines with aura often affect people who are younger than the typical stroke patient. A stroke at a younger age means disability and loss of productivity much earlier in life and may be more impactful than in the elderly.

"If you get migraines with aura, make sure your stroke risk factors are assessed by your doctor," Sen said. Stroke risk factors, including high blood pressure, diabetes, smoking and high cholesterol, need to be treated. People with migraine and a [stroke](#) should be screened for hardening of [blood vessels](#) and irregular heartbeat—two factors linked to the mechanisms that cause cardio-embolic and thrombotic [ischemic strokes](#).

Provided by American Heart Association

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