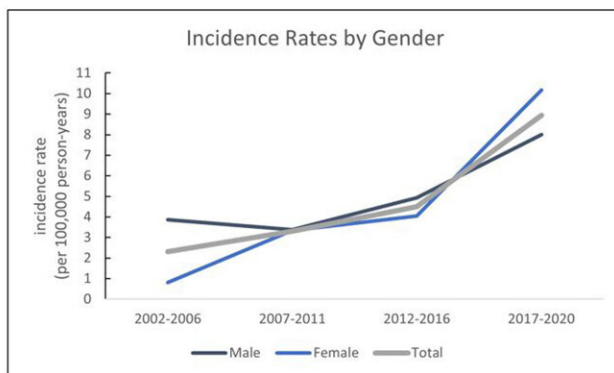




Torn neck arteries may be more common than once thought


February 23 2024, by Laura Williamson

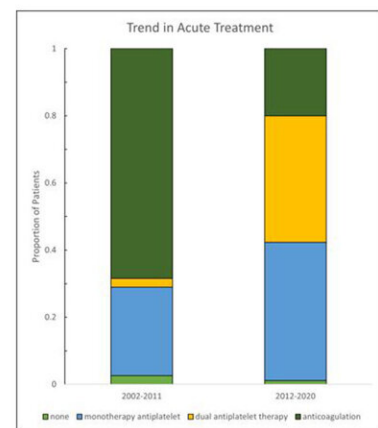
Epidemiology of Spontaneous Cervical Artery Dissection Rochester Epidemiology Project, Olmsted County, MN




CeAD detection rate  ~fourfold in 2002-2020

 0.81 → 10.17 in 100,000  3.9 → 8.0

Only 36.6% presented with ischemic stroke 



Anticoagulation use  DAPT use 

 ~8% recurrent ischemia
~8% recurrent dissections

Credit: *Stroke* (2024). DOI: 10.1161/STROKEAHA.123.043647

Along each side of the neck are a pair of arteries that supply blood to the brain. It's rare for one of those blood vessels to tear. But it's one of the most common causes of a stroke in younger adults, according to a new report that comes on the heels of research showing that cases appear to be rising, especially among women.

Known collectively as the cervical arteries, the carotid arteries supply blood to the front of the brain and the vertebral arteries supply the back. A tear in one of these arteries—called a cervical artery dissection—can happen spontaneously or be triggered by an injury or drastic neck movement. The tear makes it possible for blood clots to form, which can travel to or block blood flow to the brain, causing a [stroke](#).

Torn neck arteries are responsible for as many as 1 in 4 strokes among adults under 50, says an American *Heart Association* [scientific statement](#) about cervical artery dissection published this month in the journal *Stroke*. The report came just days after [a separate study](#) in *Stroke* showed cases of cervical artery dissection in one Minnesota county have risen fourfold since 2002 and twelvefold in women.

But the dramatic rise may be less about an increase in dissections and more about a greater ability to diagnose them due to growing use of noninvasive imaging, said neurologist Dr. Zafer Keser, an assistant professor of neurology at the Mayo Clinic College of Medicine in Rochester, Minnesota. He was senior author of the study in *Stroke*.

"It may be related to increased usage of CT scans in the emergency setting," which has risen substantially in the past two decades, Keser said.

Rising awareness of neck artery tears among [health care professionals](#) also plays a role, said neurologist Dr. Shadi Yaghi, an associate professor and division chief for vascular neurology at the Alpert Medical School at Brown University in Providence, Rhode Island. Yaghi chaired the committee that wrote the AHA scientific statement.

"People are looking for this and ordering scans when there is a suspected stroke," he said. "We're picking it up more. I don't see a strong reason why it would happen more."

While it's unclear what causes dissections that don't result from injuries, some people may be born with a [genetic predisposition](#) to weakened arteries that can tear more easily, Yaghi said. Inflammation or some infections also may make arteries more vulnerable to rupture when a person jerks or suddenly twists their neck.

"You need to have the perfect storm for this to happen," he said.

The data also suggests that health care professionals are diagnosing cervical dissections in women earlier, before they cause a stroke, Keser said. He said his study in *Stroke* found only 28% of women with cervical dissections experienced strokes, compared to 45% of men.

"As a community, we may be doing a better job taking women's symptoms more seriously than before," Keser said. "Maybe we're doing a better job of getting rid of our biases. But that's just my speculation."

Cervical artery dissection can be challenging to diagnose because symptoms—such as [severe headache](#) or neck pain—are so general. And sometimes a dissection occurs with no symptoms at all, Keser said. It may only be diagnosed after a person has a stroke.

"That is the most feared complication of dissection," he said. "It is one of the most common causes of stroke in young people. That's why it's very important to recognize the symptoms."

Severe headaches, for example, can be misdiagnosed as migraines, which are more common in women than men, Yaghi said. "If a woman has a history of migraines, and she's having a headache that is not similar to her typical migraine, she should seek medical attention immediately."

Immediate treatment is important, he said, because the risk of having a stroke is highest within the first few weeks.

Treatment includes blood-thinning medications, including antiplatelet and anticoagulant drugs, to prevent [blood clots](#) that can lead to strokes, and [pain management](#) to alleviate headaches and neck pain if needed, Keser said.

The AHA report suggests treatment be individualized based on a person's stroke risk and risk for excessive bleeding, which can be caused by blood-thinning medications. It also encourages health care professionals to look beyond the arteries in the neck following a diagnosis to see whether arteries in other parts of the body are damaged.

"We need to look at the patient on the whole," Yaghi said. "If they have a problem here, they may have problems in other arteries."

More information: Shadi Yaghi et al, Treatment and Outcomes of Cervical Artery Dissection in Adults: A Scientific Statement From the American Heart Association, *Stroke* (2024). [DOI: 10.1161/STR.0000000000000457](#)

Kim J. Griffin et al, Epidemiology of Spontaneous Cervical Artery Dissection: Population-Based Study, *Stroke* (2024). [DOI: 10.1161/STROKEAHA.123.043647](#)

Provided by American Heart Association

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