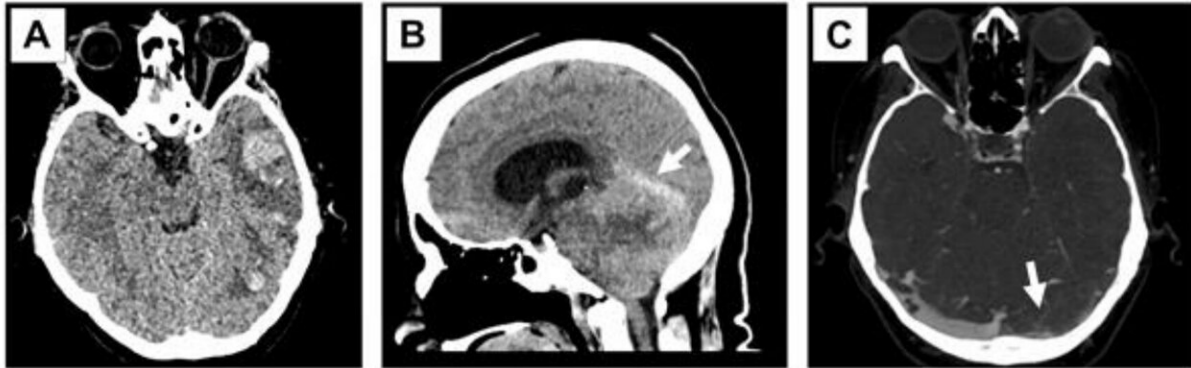


Seizures more common after venous stroke

September 30 2022



Computed tomography imaging findings in patients with cerebral venous thrombosis. A: Axial view, non-contrast. Left temporal lobe venous infarction (right side of the picture). White areas indicate hemorrhages and darker surrounding areas edema and infarct. B: Sagittal view, non-contrast.

Hyperattenuated straight sinus indicative of a cerebral venous thrombosis (white arrow). C: Axial view, contrast-enhanced computed tomography venography.

The patient's left transverse sinus (right side of the picture, white arrow) is hypoattenuated, representing absence of contrast secondary to a cerebral venous thrombosis. Credit: Cerebral Venous Thrombosis: Complications and Outcomes, Erik Lindgren

Epileptic seizures are frequent among patients with cerebral venous thrombosis—a blood clot affecting the venous system of the brain. A thesis from University of Gothenburg suggests that some of these patients should be diagnosed with epilepsy and offered medication to prevent further seizures.

Cerebral venous thrombosis (CVT) is an unusual cause of stroke that mainly affects young adults. Previously, only small-scale studies have linked seizures to CVT. In an extensive new international collaboration, scientists have been able to collect a substantial set of research data to investigate the matter in more detail.

The thesis shows that every third patient with CVT suffers from an epileptic seizure in the acute phase, and every tenth patient experience at least one seizure after the acute phase. Seizures after CVT are thus much more common than after other causes of stroke.

"Those who get a first late-onset epileptic seizure run a high risk of suffering further seizures. Our results support the view that these patients should be diagnosed with epilepsy already at time of their first late-onset epileptic [seizure](#) and thereby be offered medication to prevent further seizures," says resident in neurology Erik Lindgren, who recently defended his [doctoral thesis](#) at Sahlgrenska Academy, University of Gothenburg.

Relatively young

CVT mainly affects [young adults](#) of working age (below 50), and women more often than men. Their symptoms are highly variable, from chronic headache to acute seizures or typical stroke symptoms, such as slurred speech or weakness in an arm or a leg. Some 150 to 200 Swedes are affected annually (15–20 per million inhabitants).

The thesis is based on investigations of people diagnosed with CVT from a large, newly established international database with over 1400 patients from 15 countries. The database includes register data from Sahlgrenska University Hospital in Gothenburg.

Risk calculator

Jointly with his research colleagues, Lindgren is developing a calculator that enables rapid assessment of patients' risk of becoming dependent on assistance, or dying, during the first year after their diagnosis of CVT.

"The calculator is a step towards more individualized care for patients affected by CVT, and may help to identify patients in need of intensified and personalized care. The calculator also has the potential to be used in future research studies to identify high-risk [patients](#) who could benefit from more aggressive treatments."

More information: Thesis: gupea.ub.gu.se/handle/2077/70936

E. Lindgren et al, Vocational outcome in cerebral venous thrombosis: Long-term follow-up study, *Acta Neurologica Scandinavica* (2017). [DOI: 10.1111/ane.12875](https://doi.org/10.1111/ane.12875)

Erik Lindgren et al, Acute symptomatic seizures in cerebral venous thrombosis, *Neurology* (2020). [DOI: 10.1212/WNL.0000000000010577](https://doi.org/10.1212/WNL.0000000000010577)

Mayte Sánchez van Kammen et al, Late seizures in cerebral venous thrombosis, *Neurology* (2020). [DOI: 10.1212/WNL.0000000000010576](https://doi.org/10.1212/WNL.0000000000010576)

Erik Lindgren et al, Dural arteriovenous fistulas in cerebral venous thrombosis, *European Journal of Neurology* (2021). [DOI: 10.1111/ene.15192](https://doi.org/10.1111/ene.15192)

Provided by University of Gothenburg

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