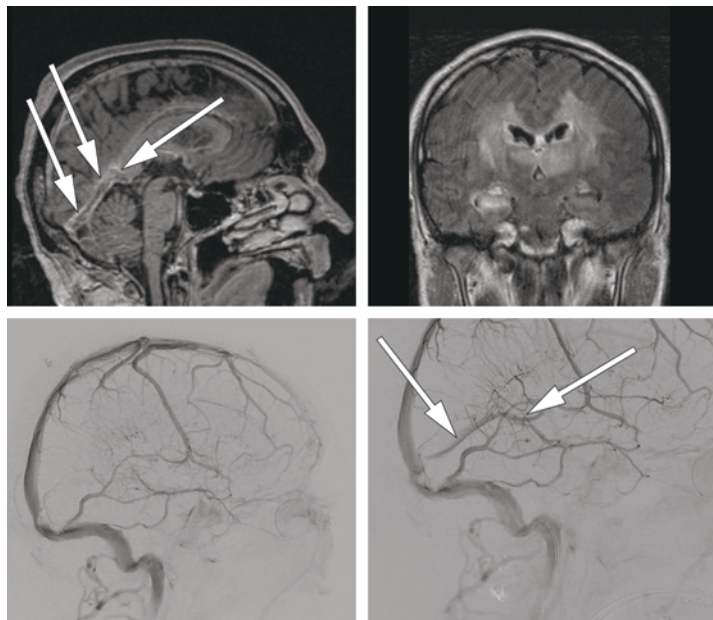


Cerebral venous thrombectomy



A man in his 50s was stopped by the police because he had driven his car on the wrong side of the road. He was admitted on suspicion of stroke.

He was confused on examination. Cerebral CT and CT-angiography showed open arteries on initial investigation and his condition was considered consistent with encephalitis. He developed aphasia and decreasing consciousness the following day. Plantar reflexes were inverted bilaterally.

On cerebral contrast-enhanced and T1-weighted MRI (upper left), contrast sparing of the midline in the great cerebral vein (vein of Galen) and straight sinus (arrows) are shown. Bilateral signal changes on FLAIR are shown to the upper right, as a result of cerebral venous thrombosis.

Endovascular treatment was performed on a vital indication. Access to the intracranial venous system was obtained via a catheter from the right femoral vein to the right internal jugular vein. A microcatheter was advanced through the transverse sinus and sigmoid sinus to the straight sinus and the vein of Galen. After thromboaspiration and thrombectomy with a Solitaire temporary stent, the straight sinus and vein of Galen were recanalised. Cerebral angiography in venous phase (side view) after contrast injection in the left internal carotid artery is shown to the bottom left before the thrombectomy, and after to the bottom right. The arrows mark the open, above-mentioned venous structures after treatment.

The patient was given anticoagulation therapy with dalteparin for three weeks, followed by rivaroxaban. At discharge he

showed signs of psychomotor retardation and somewhat reduced memory, but otherwise was without neurologic sequelae.

Endovascular thrombolytic treatment and thrombectomy of venous cerebral vessels can be relevant for patients with lack of clinical response to anticoagulation treatment (first-line therapy) and rapid neurologic progression with reduced consciousness (1). At present there are no available data from randomised clinical trials to document the value of mechanical thrombectomy versus anticoagulation treatment for cerebral venous thrombosis (2). The effect on mortality and level of function is under debate (3), and the procedure should for the time being be performed within a registry study or as part of a randomised controlled trial.

The patient has consented to the publication of this article.

Mirza Jusufovic
mirza.jusufovic@medisin.uio.no
Department of Neurology
Division of Surgery and Clinical Neuroscience

Øivind Gjertsen
Section of Neuroradiology
Department of Radiology and Nuclear Medicine
Division of Diagnostics and Intervention

Fakhira Khalid
Department of Neurology
Division of Surgery and Clinical Neuroscience

Bjørn Tennøe
Section of Neuroradiology
Department of Radiology and Nuclear Medicine
Division of Diagnostics and Intervention

Mona Skjelland
Department of Neurology
Division of Surgery and Clinical Neuroscience
Oslo University Hospital, Rikshospitalet

Mirza Jusufovic (born 1980) Specialty registrar and PhD scholar

The author has completed the ICMJE form and declares no conflicts of interest.

Øivind Gjertsen (born 1966) Specialist in Radiology and Senior Consultant.

The author has completed the ICMJE form and declares no conflicts of interest.

Fakhira Khalid (born 1980) Specialty registrar
The author has completed the ICMJE form and declares no conflicts of interest.

Bjørn Tennøe (born 1960) Specialist in Radiology and Senior Consultant.
The author has completed the ICMJE form and declares no conflicts of interest.

Mona Skjelland (born 1956) Specialist in Neurology and Senior Consultant.

The author has completed the ICMJE form and declares no conflicts of interest.

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