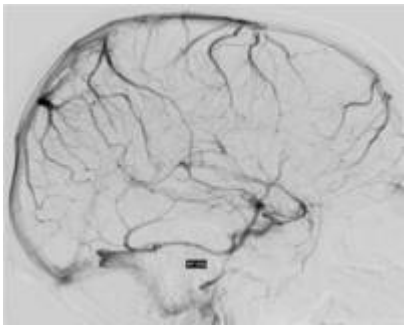
Cerebral venous sinus thrombosis treatment



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Although management guidelines exist for spontaneous CSVT [1)], the optimal management and follow-up of the condition in the setting of concurrent TBI remains undetermined, and specific guidelines are non-existent.

The patient's clinical status is closely monitored, including neurological examination for signs of deterioration or complications related to CVST, such as increased intracranial pressure or cerebral edema.

Hydration with IV fluids and IV anticoagulation is part of the initial treatment for cranial sinus thrombosis (CST). Before initiation of treatment, blood for hypercoagulopathy tests is drawn.

The severity of cerebral venous thrombosis (CVT) may require the transfer to intensive care unit (ICU).

Treatment is with anticoagulants and rarely thrombolysis (enzymatic destruction of the blood clot).

Batroxobin may promote venous sinus recanalization and attenuate CVT-induced stenosis. Further randomized study of this promising drug may be warranted to better delineate the amount of benefit [2)].

Guidelines

Cerebral venous sinus thrombosis guidelines.

Indications for endovascular intervention

- Persistent ischemic symptoms despite anticoagulation therapy.
- Contraindication to anticoagulation and/or anti-platelet therapy including hemorrhagic infarct [3)].
- Impending risk of stroke.

Endovascular treatment

Chemical Thrombolysis: A catheter may be advanced to the involved sinus or close to it, through the femoral vein. The advantage of local administration is that, a larger amount of tPA actually reaches the clot vs systemic administration through a peripheral vein. Usually, 2–5mg are administered through the thrombus and then an infusion started at a rate of 1 mg/hr, usually for 12 hours. If clot burden is still there on angiography, the infusion may be continued for longer, until the clot resolves.

For CST, the infusion may be prepared in a concentration of 1 mg/10 ml (0.1 mg/ml), for a rate of 10 ml/hr.

Mechanical Thrombolysis

see Mechanical Thrombolysis.

Data demonstrate that repression of the cGAS–STING pathway diminishes the neuroinflammatory burden of cerebral venous sinus thrombosis and highlight this approach as a potential therapeutic tactic in CVST-mediated pathologies [4)].

Decompressive craniectomy for cerebral venous sinus

thrombosis

Decompressive craniectomy for cerebral venous sinus thrombosis

References

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