



Prognostic Evaluation and Future Prospect of Cerebral Venous Sinus Thrombosis

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ABSTRACT

Cerebral Venous Sinus Thrombosis (CVST) is a relatively rare but potentially fatal venous system stroke disease. Unlike intracranial arterial ischemic infarction, the age of onset of CVST tends to be younger, and generally not associated with traditional cerebrovascular disease risk factors such as hypertension, diabetes, hyperlipidemia, coronary heart disease. Due to the low incidence, complex etiology, and lack of typical clinical symptoms, misdiagnosis and missed diagnosis are easy to occur in the early stage of the disease. The time for early diagnosis and correct treatment is prolonged, and the prognosis is poor. Therefore, it is particularly important to actively assess the overall quality of patients after diagnosis, predict possible outcomes, and implement relevant preventive and intervention measures as soon as possible.

Keywords: Cerebral Venous Sinus Thrombosis (CVST); Prognosis; Treatment; Intervention

DESCRIPTION

In recent years, relevant studies and reports on its prognosis prediction emerge in an endless stream. Here, the clinical factors that may affect the prognosis of CVST patients are summarized, and the predictive factors leading to the poor prognosis of CVST are identified, which can provide a reference for accurate assessment of the patient's condition and further active and effective treatment measures.

In terms of clinical manifestations and symptoms, female gender, impaired consciousness, focal neurological deficits, and concomitant epilepsy are all predictive of poor outcomes, although most studies agree that patient outcomes are also age-related, but only Zheng Huagang gave a clear value ≥ 37 years old [1-6].

From the perspective of laboratory test indicators, elevated homocysteine, lymphocyte-monocyte ratio (LMR), and Neutrophil-Lymphocyte Ratio (NLR) are currently relatively clear risk factors associated with patient prognosis. However, although there are many studies on D-dimer and red blood cell distribution width, they are all small-scale experiments, and the conclusions are still unclear and controversial [7-11], but some

studies still give their own scientific research results, considered that a baseline D-dimer level >990 ng/ml was an independent predictor of poor short-term prognosis in patients with CVST [12].

From the analysis of imaging findings, midline shift, brain parenchyma involvement (including ischemic stroke, cerebral hemorrhage, cerebral edema, etc.) are associated with poor prognosis [13]. Interestingly different from our previous belief that involvement of the deep venous system may be associated with poor outcomes, in recent years; some scholars believe that cortical vein thrombosis often predicts bad consequences [14].

In general, although there are many studies on the predictors of prognosis in patients with CVST, all of them are small-scale trials, lack of large-scale clinical controlled trials, the data are not universal, and some are still controversial, not yet included in the guidelines, but still has guidance and reference value for clinicians to comprehensively evaluate patients.

The currently recognized treatments mainly include etiological treatment, anticoagulation treatment, antiplatelet and defibrillation treatment, intravenous thrombolytic treatment, endovascular treatment, and treatment of secondary dural

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arteriovenous fistula. The general principles of dural arteriovenous fistula can be followed, glucocorticoids, reducing intracranial hypertension and optic nerve protection, anti-epileptic treatment, the treatment methods are clear, but there are still many implementation problems for clinicians. Consider whether thrombolysis, when to consider endovascular treatment, under what circumstances mechanical thrombectomy and stent implantation, which treatment is more beneficial to patients after intravenous thrombolysis fails, patients with combined surgery, severe cerebral hemorrhage or high risk of rebleeding Whether to continue anticoagulation, when to start anticoagulation, how long to anticoagulate, what dose, etc. Since there is insufficient evidence for the safety of anticoagulation in patients with CVST associated with bleeding disorders such as intracerebral hemorrhage, treatment decisions must be individualized and should be weighed against the risk of rebleeding in these patients. Once it is defined as severe cerebral venous sinus thrombosis, the treatment may need to be more aggressive, but it is still unclear how aggressive, whether conservative treatment or interventional treatment is better and how effective the combined treatment is.

CONCLUSION

Therefore, there is still a lot of development prospects and research space. At present, the treatment still needs to take individualized treatment based on the overall situation and prognosis of the patient, adjust the treatment plan in a more positive way, and choose the treatment method that is beneficial to the patient's prognosis and less painful.

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