

Evaluation of clinical, imaging, and six-month outcomes of patients diagnosed with Cerebral Venous Sinus Thrombosis referred to Alavi Hospital in Ardabil during 2019 and 2020

Abstract

Background: Cerebral venous sinus thrombosis is an unusual cause of headache and stroke; its clinical manifestations are very diverse. Important clinical features include new onset of focal headache, or the onset of a headache with seizures, papilledema, or focal defect. Consideration of risk factors, especially the use of hormonal drugs, recent pregnancy, coagulation disorders, as well as recent infections and systemic inflammation, can lead to clinical suspicion of CVST. Modern MR imaging allows for early and accurate detection.

Aim: The aim of this study was to comprehensively evaluate the clinical symptoms and imaging findings and 6-months follow-up of patients with a diagnosis of venous sinus thrombosis who referred to Alavi Hospital in 2019 and 2020.

Material and Methods: This is a cross-sectional study that is designed to investigate the clinical features, imaging and six-month follow-up outcomes of CVST patients during 2019 and 2020. Data on clinical, preclinical, and imaging records of inpatients were collected. The identified patients were followed up for 6 months after the start of treatment.

Results: The results showed that women with a frequency of 47 patients (84%) had a higher percentage of patients. The most common symptom was headache which was found in 49 patients (87.5%) followed by nausea and vomiting, sensory and visual symptoms with a frequency of 32 patients (57.1%), 29 patients (51.8%). and 25 patients (44.6%), respectively.

Risk factors studied include: consumption of OCP in (27.6%), PCOD in (14.3%), C3 deficiency in (12.5%), ear infection in (7.1%). Also, the most common sinus involved was the superior sagittal sinus (35.7%), followed by the right transverse sinus and right sigmoid sinus with frequencies of (25%) and (14.3%),

respectively. The final 6-month follow-up showed that 26 cases cured, 24 cases had persistent headache complications, 31 patients were still receiving medical treatment, 3 patients were readmitted due to recurrence of symptoms, and one died within six months. The death was due to Covid-19 infection. In 52 cases, the involved sinus was reanalyzed and in 4 cases, the sinuses were still involved. And most refers were recorded in summer and September.

Conclusion: In the present study, we found that the clinical symptoms of patients are very various and misleading, but the most common clinical symptoms were headache, nausea and vomiting. Women were involved more than men. we had the most involvement in summer and September. Modified Rankin scale was significantly correlated with PT, ESR, Hb, Protein C, ear infections, and rheumatic diseases.

Keywords: Cerebral Venous Sinus Thrombosis, MR-Venography, Anticoagulant Therapy, SII, Modified Rankin Scale