Are Serum Levels of Ferritin, Iron and TIBC Beneficiary in Early Diagnosis or Prognosis of Cerebral Venous Sinus Thrombosis? A Prospective Cross-sectional Study

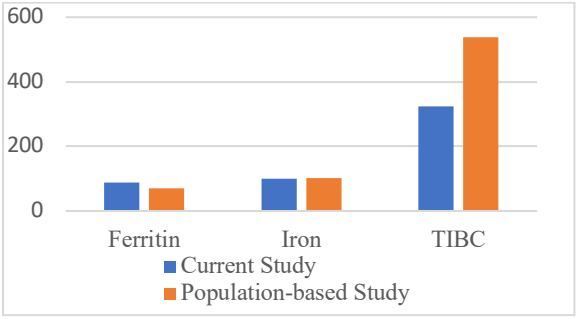
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Abstract

Background: Cerebral venous sinus thrombosis (CVST) is a potentially life-threatening condition with wide range of clinical presentations from localized headache (as the most common (89%) symptom) to mental status disturbances, seizure and coma. Therefore, proper diagnostic and prognostic modalities can prevent any delays resulting in further consequences. The main purpose of this study is to evaluate serum levels of ferritin, iron and total iron binding capacity (TIBC) as potential blood indices for predicting CVST in clinical and para-clinical settings since these parameters are inexpensive and widely available. **Methods and materials**: Thirty patients with definitive diagnosis of CVST based on brain MRI and MRV results, participated in the study. During the first 24 hours after admission, a vial of 5 cc blood sample was collected from each patient and delivered to the laboratory to measure serum ferritin, iron and TIBC levels. **Results**: 24 women and 6 men (mean age, 42.6 ± 16.33) participated in the study and the mean ± standard deviation (SD) levels of serum iron, TIBC and ferritin were normal (99.40 ± 29.97 mg/dl, 324.50 ± 49.57 mg/dl, 87.36 ± 88.84 ng/ml respectively). There were also no significant relationships between serum iron, TIBC and ferritin levels with study variables such as oral contraceptive pills consumption, history of CVT or CVA, underlying diseases and the involved sinus. **Conclusion**: Results of the current study showed no possible benefits of using serum ferritin, iron and TIBC indices as predictive indicators for CVST diagnosis or prognosis. **Key Words:** Cerebral venous sinus thrombosis, stroke, ferritin, iron

Figure 1. Mean serum levels of ferritin, iron and TIBC between two groups



Recent Publications

1. Ferro JM, Aguiar de Sousa D. Cerebral Venous Thrombosis: an Update. Current Neurology and Neuroscience Reports, Aug 23 2019;19(10):74.

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