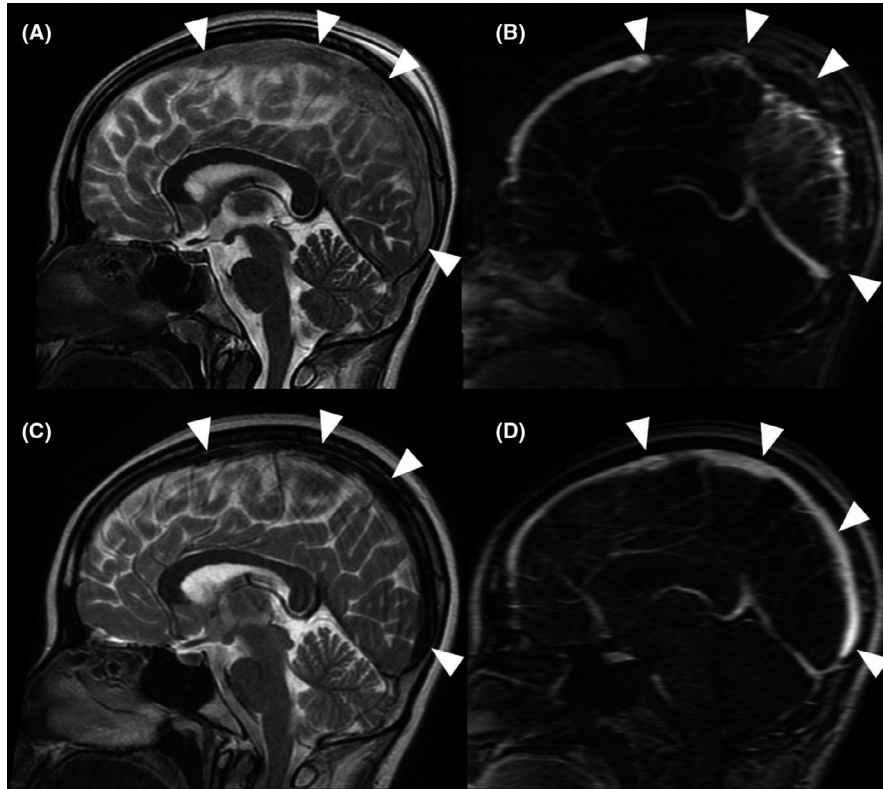


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Clinical Images: Cerebral venous sinus thrombosis as one of the initial presentations of systemic lupus erythematosus



The patient, an 18-year-old woman, presented to our hospital with skin rash, nausea, vomiting, and headache for 1 week. The physical examination revealed a malar rash. The laboratory test results showed pancytopenia, proteinuria, and high levels of antinuclear and anti-double-stranded DNA antibodies. The diagnosis of systemic lupus erythematosus (SLE) was established. Hydroxychloroquine and methylprednisolone were prescribed. However, the headache deteriorated, and consciousness became drowsy. The sagittal T2-weighted brain magnetic resonance imaging showed dilated superior sagittal sinus with heterogeneously high signal (A, arrowheads). The contrast-enhanced magnetic resonance venography at the corresponding location showed a segmental filling defect spanning from the middle superior sagittal sinus to the confluence of sinuses (B, arrowheads). These findings suggested the diagnosis of cerebral venous sinus thrombosis. Relevant laboratory test results included a mildly elevated level of anticardiolipin immunoglobulin G (10 U/ml; negative, less than 10 U/ml), a positive lupus anticoagulant test result (ratio of 1.28; negative, ratio of less than 1.2), and an elevated level of d-dimer (21.5 mg/l; negative, less than 0.5 mg/l). Low-molecular-weight heparin, medium-dose methylprednisolone, and cyclophosphamide were administered. She had an excellent clinical response, without sequelae. After 6 months of treatment, follow-up brain magnetic resonance imaging showed resolution of thrombosis (C and D, arrowheads). Cerebral venous sinus thrombosis is a rare complication of SLE (1). Headache, visual field defects, and altered consciousness are the leading presentations of cerebral venous sinus thrombosis in SLE (1). Delayed diagnosis is associated with an increased risk of later visual deficit (2). In addition, venous hypertension due to venous thrombosis may cause venous infarction, cerebral edema, intracranial hypertension, cerebral hernia, and death (1). Intracranial hemorrhage related to cerebral venous sinus thrombosis was also reported to be associated with mortality (3). Therefore, early diagnosis of cerebral venous sinus thrombosis and immediate anticoagulation are essential for these patients.

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