

A case of multiple cerebral sinuses thrombosis shortly followed by subarachnoid hemorrhage in a young patient with myelofibrosis

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Background: Bleeding and thrombosis are long recognized complications of myelofibrosis (MF) and contribute significantly to its morbidity and mortality. Coexistence of both complications is unusual and provides a therapeutic dilemma. **Case Presentation:** A 40-year-old woman known with a one-week history of diffuse headache and horizontal diplopia was admitted in our emergency department for a generalized convulsive seizure. From her medical history we mention that she was diagnosed with myelofibrosis with hepato-splenomegaly, hypertensive gastropathy, and esophageal varices. She was on treatment with Momelotinib. Neurological examination revealed: neck stiffness, left sixth and fourth nerve palsy and a transient right hemiparesis (48 hours duration) with onset on the second day after admission. Cerebral MRI at admission reveals recent bleeding in the subarachnoid spaces and thrombosis of the superior sagittal and left transverses and cavernous sinus. Lumbar puncture revealed macroscopic hemorrhagic cerebrospinal fluid. Blood tests showed mildly elevated liver enzymes, normal platelet number, normal coagulogram and anemia. A CT scan done on the sixth day after the onset of SAH showed no blood in the subarachnoid spaces. **Conclusion:** Regarding the etiology of SAH we consider that it may lay in platelet hypofunction related to myelofibrosis or/and in venous congestion associated with sinus thrombosis. We started anticoagulation therapy 12 days after admission, delayed by perceived hemorrhagic risk (esophageal varices and possible platelet dysfunction) and keep it for three months without any other hemorrhagic event. Control MRI 6 months later showed regression of sinuses thrombosis.