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Polycythemia in a Young Patient as a Probable Cause of Cerebral Venous Thrombosis

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Categoria: Cefaleias Secundárias

Introduction
The clinical and imaging diagnosis of CVT is difficult, due to its broad, non-specific and variable clinical presentation with over-lapping changes in signals and venous flow in conventionally used images. The condition can vary from a mild and insidious headache to dramatic conditions, such as those that evolve with cranial hypertension and focal deficits.A significant proportion of patients have a reasonable prognosis with no deficits or minimal sequelae when treated with appropriate drugs early. It is known that conditions in which there is an increase in blood viscosity, such as hematological hyperviscosity syndromes (Polycy-themia Vera (PV), Essential Thrombocythemia (ET) and Myelodysplasias), it can generate changes in CSF dynamics directly or indirectly. Two mechanisms involved in the predisposition: Decreased absorption of cerebrospinal fluid (CSF) and progressive increase in venular and capillary pressure, both of which can be influenced by blood viscosity contributing to increased blood stasis and the risk of venous thrombotic events and arterial. The 2016 WHO classification divides the diagnostic criteria for PV into major and minor, defined respectively by: elevated HB (>16.5 g/dl for men/>16.0 g/dl for women), HCT (>49 % in men / >48% in women) or elevated red blood cell mass (>25% above the predicted mean normal value); pleomorphic changes in the bone marrow, such as panmyelosis and hypercellularity; and presence of the JAK-2 mutation. The minor criterion for PV is a subnormal level of erythropoietin. At least two major criteria and the minor criterion are required for the diagnosis of PV. **Objectives**
Describe a case of headache secondary to CVT in a patient with polycythemia as a probable causal factor
Case report
Man, 22-year-old, no comorbidities, with a history of alcoholism, smoking and recreational use of cannabis and cocaine. Started in January 2022 moderate-intensity headache, frontal, oppressive and intermittent. In May 2022, he presented with a non-specific viral illness, after which the headache became intense, continuous and refractory to common analgesia. After 2 weeks, he presented a generalized tonic clonic seizure (CTCG) with a return to the previous baseline state, but maintained an intense headache. He arrived at the Emergency of the General Hospital of Fortaleza four days later, presenting right-sided hemiparesis, reduced verbal fluency and papilledema. A cranial tomography (CT) showed temporo-parietal intraparenchymal bleeding with vasogenic edema on the left and indirect signs of intracranial hypertension. The angiotomographic study showed extensive thrombosis of the transverse, superior and inferior sagittal sinuses, rectum, sigmoid sinuses and sigmoid anastomoses, in addition to the internal jugular vein on the left. Therapy with acetazolamide was started for intracranial hypertension and anticoagulation with coumarin. Following an etiological investigation, a significant increase in hemoglobin and hematocrit was found, with values of 19.9 g/dl and 56.1%. Myelogram without atypia, but with absolute hyperplasia of the granulocytic sector. The JAK-2 test was negative. The patient began follow-up with Hematology, and serial phlebotomies were recommended, evolving with a good response and reduction in hemoglobin and hematocrit levels, in addition to stable clinical status in subse-quent evaluation. The hypothesis of CVT of probable hematological etiology secondary to polycythemia with no clear etiology was put forward.
Conclusion
Faced with patients like the case reported, even with incompletely met criteria, it is extremely important to follow a rigorous diagnostic work-up, in order to exhaust the hypotheses. Directing him to treatment as early and effective as possible, since there are a series of clinical conditions, not just hematological, such as polycythemia detected in the patient in this case, which can evolve into serious complications.

Keywords: Thrombosis; Polycythemia; Headache.Keywords