



## **CYCLOPHOSPHAMIDE IN THE INDUCTION OF POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME (PRES): A CASE REPORT**

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### **BACKGROUND**

It is a clinical and radiographic syndrome, with unknown incidence, where all age groups appear susceptible and are reported more commonly in women. Hypertensive disorders, kidney disease and immunosuppressive therapies are important risk factors. It is believed to be related to altered cerebral circulation and endothelial dysfunction that culminates in vasogenic cerebral edema. It is considered benign, but it can cause irreversible neurological damages which can lead to death.

The most common manifestation is a change in mental status. Other symptoms can be present such as headache, nausea/vomiting, visual abnormalities, impaired consciousness, convulsive activity, and focal neurologic. The diagnosis is neuroradiological.

The initial treatment is the removal of the precipitating factor, hypertensive control and other conducts to control various symptoms. Complete recovery is expected in up to 70% of patients.

The clinical resolution is expected in, on average, 6.6 days. GOAL: To discuss the rare and unknown syndrome that needs early clinical suspicion to avoid iatrogenic treatments.

### **CASE REPORT**

A 79-year-old male patient, bearer of blood hypertension and hypocomplementenemic vasculitis of small vessels (HV) undergoing immunosuppressive treatment with Cyclophosphamide. Submitted to medical attention due to lowering of the sensorium, disorientation, sphincter loss and headache. Glasgow 11, 90% saturation, tachycardic, with increase blood pressure (200/90mmhg), verbal aphasia and diffuse bruises in the upper and lower limbs. After cranial tomography, the diagnoses of PRES syndrome post-treatment with intravenous cyclophosphamide was firmed.

He was admitted to the intensive care unit and undergone multiple tests that showed no alterations. During hospitalization he evolves with hallucinations, disorientation and psychomotor agitation. Treatment with Cyclophosphamide was suspended, hypertensive and symptomatic control were installed. There was an improvement, and after 30 days of hospitalization, the patient was asymptomatic. There have been few reported cases of PRES precipitated by Cyclophosphamide, the report in question also draws attention the occurrence in a male patient and the longer course than the common for full recovery of symptoms, unlike reports.

The predominant manifestation, as well as in the literature, was also the alteration of the mental state, psychomotor agitation and the neuroimaging signal with vasogenic edema of posterior cerebral circulation. Management with withdrawal of the precipitant factor and the offering of symptomatic treatment were effective.

## **CONCLUSION**

PRES Syndrome precipitated by the immunosuppressive Cyclophosphamide is a situation unknown by medical teams around the world. Hopefully, with more research, the syndrome will become more recognizable.