Central Pontine Myelinosis Associated with Diabetes Mellitus: An unusual mode of revelation A case Report

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Introduction:

Centropontine myelinolysis (MCP), is a severe neurological condition related to non-inflammatory axonal demyelinating lesions, mostly located at the pontic level. This pathology is often related with a rapid correction of severe hyponatremia. However, a few rare cases of MCP with normal natremia in an uncontrolled hyperglycemic diabetes setting have been described.

Case Report:

66-year old man patient. No toxic habits; experienced during 8 months a progressive onset of an Asymmetric peripheral neurogenic with a stato-kinetic cerebellar syndrome. A diabetes type II was diagnosed with Major hyperglycemia without ketosis.

Serum electrolytes, renal, hepatic screening, sexually transmitted diseases serologies, tumor markers , B9 and B12 Assay were within the normal ranges.
ENMG: Long dependent sensory-motor axonal polyneuropathy with overadded demyelinating component

Cerebral MRI:

Hypersignal bridge abnormalities Flair and diffusion with ADC restriction, Non-contrast-enhanced, in favor of a centro-pontine myelinosis.

Discussion:

Hyperosmolarity induced by hyperglycemia could be responsible by the same mechanism as a rapid infusion of hypertonic saline serum of a rapid movement of water and electrolytes from the intracellular medium to the extracellular medium, affecting the cells of the nervous system
The diagnosis is based on visualization at the brain MRI of lesions in hyposignal T1 and hypersignal T2 and FLAIR in the Centro pontine region.

Conclusion:

MCP is a rare mode of revelation of diabetes mellitus being a particular complication of chronic hyperglycemia. This etiology is to be considered after the exclusion of a vascular cause.

Keywords:

Central pontine myelinosis, diabetes mellitus.