

A case series of hemichorea due to non ketotic hyperglycemia with unique MRI brain finding

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Introduction: Hemi chorea occurs due a focal vascular lesion, neoplasm, granuloma, in the contra lateral basal ganglia. Metabolic derangements especially hyperglycemia can also cause focal neurological dysfunction like chorea, hemiparesis or a focal seizure. It is common to find bilateral lesions in neuroimaging due to a metabolic disturbance. Here we present clinical profile and MRI brain findings of hemichorea due to hyperglycemia, a common metabolic abnormality.

Material and Methods: Patients admitted with acute hemichorea were included for the study. A detailed history and examination was done in all patients. Hemogram, blood sugar, HbA1C, renal function test, lipid profile and MRI of the brain were done.

Results: From May 2008 to September 2009 there were 9 patients admitted with hemichorea. 3 patients were found to have acute striatal infarcts, 1 patient had a granuloma and other five patients had hyperglycaemia without ketosis. The median age of these patients who had hyperglycemia was 60 years, mean duration of symptoms was 2 days and their mean HbA1c was 10.1. MRI of brain revealed unilateral T1 hyper intensities in the contra lateral striatum and normal T2W images. There was no diffusion restriction, no blooming in gradient echo sequence and MRS revealed low NAA peak. Chorea subsided once the hyperglycaemia was controlled.

Conclusion: Unilateral lesions can occur in Striatum due to hyperglycemia in elderly diabetic patients, which is hyperintense in T1W images. Recognition of this unique clinicoradiologic manifestation is important because correction of the underlying hyperglycemia will lead to rapid improvement

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