



# CASE OF HEMICHOREA ASSOCIATED WITH NON-KETOTIC HYPERGLYCEMIA

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## ABSTRACT

**INTRODUCTION:** Hemichorea is featured by continuous movements which is also irregular, involuntary and jerky movements of one side of the body. It is due to the result of focal lesion which could be in the contralateral basal ganglia.<sup>1</sup> The most widely recognized cause of chorea is Huntington's disease- a hereditary disorder. Hemichorea due to underlying non-ketotic hyperglycemia (HC-NH) is one of the case that is rare consequences of diabetes mellitus, which is more prone in elderly diabetic women who has poor blood glucose control.<sup>2,3</sup>

**KEY WORDS:** Hemichorea, Hyperglycemia, Diabetes mellitus.

## PRESENTATION

A 60 year old female came with complaints of sudden onset of involuntary movements of right upper limb more than the right lower limb for past 2 months, which was continuous, non progressive, exaggerated on performing intentional activity and decreased on sleep, along with complaints of blurring of vision. Patient did not have any sensory disturbances and any trauma or surgery previously. Patient was not on any medications as patient did not have any comorbidities. Patient was conscious, alert, oriented, speech and memory was normal, Bp- 120/70mmHg, PR- 82/min, SpO<sub>2</sub> -97% on RA and was afebrile.

On Systemic examination of the patient, CVS- S1, S2 was normally heard, RS- bilateral entry was present equally, P/A was soft, on CNS examination- sensory system was normal, tone, power and reflexes was normal on all 4 limbs. On routine investigations were normal except, CBG was 395mg/dl, FBS- 147mg/dl, PPBS- 325mg/dl and HbA1c was 11.9%

respectively. MRI brain showed T1, T2 hyperintense change in left gangliocapsular region with blooming. As other causes of hemichorea were ruled out with investigations, Non ketotic hyperglycemia with associated hemichorea was diagnosed. Then patient was treated with VMAT2 inhibitors, anticholinergics, benzodiazepines and importantly insulin. Patient improved symptomically as glycemic control was improving gradually and discharged.

## DISCUSSION

Hemichorea is caused by the lesion that is present in the contralateral brain and could result from causes such as infections, neoplasms, genetic mutations, neurodegeneration, metabolic disease, stroke drug-exposure, and also autoimmune diseases<sup>2,3</sup>. HC-NH is featured by non-ketotic hyperglycemia, unilateral occurrence of involuntary choreiform movements, and hyperintensity in the contralateral basal ganglia seen in T1-

weighted MR imaging . Blood glucose control being the initial and essential treatment, along with dopamine receptor blockers and benzodiazepines needed in the treatment for the control of involuntary movements<sup>4,5</sup>.

## CONCLUSION

As Hemichorea due to underlying Non-ketotic hyperglycemia is one of the rare consequences of diabetes mellitus, which is prone in elderly women having poor control of diabetes, presenting this case so as to enhance the awareness about this condition and avoid missed diagnosis or misdiagnosis of the disease.

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