Mystery behind movement – Acute infarct presenting as hemichorea

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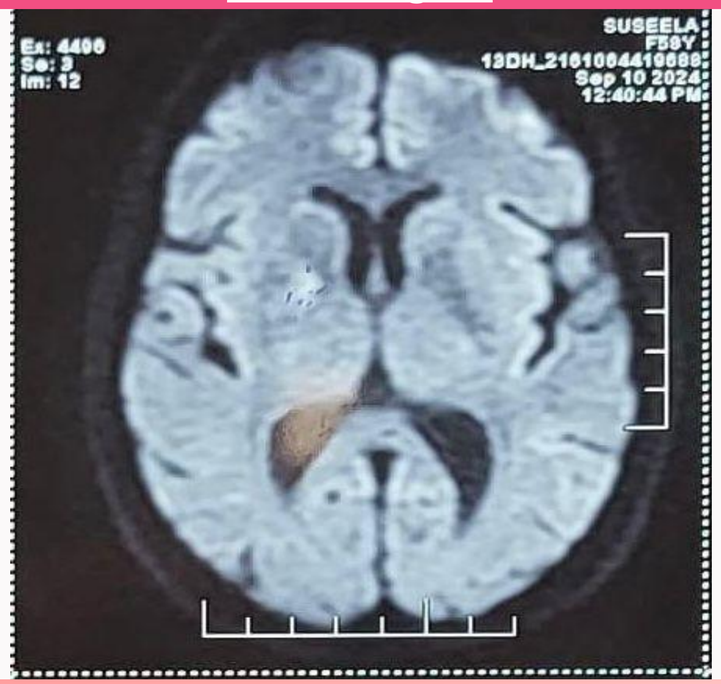
Background:

- Hemichorea is defined as continuous, irregular, and involuntary jerky movements on one side of the body
- Causes include stroke, infections, metabolic abnormalities, neurodegeneration, vascular diseases or drugs.
- Stroke may be associated with different types of movement disorders, such as hyperkinetic syndromes (hemichorea–hemiballism, unilateral asterixis, limb-shaking, dystonia, tremor, myoclonus) and hypokinetic syndromes (especially vascular parkinsonism).

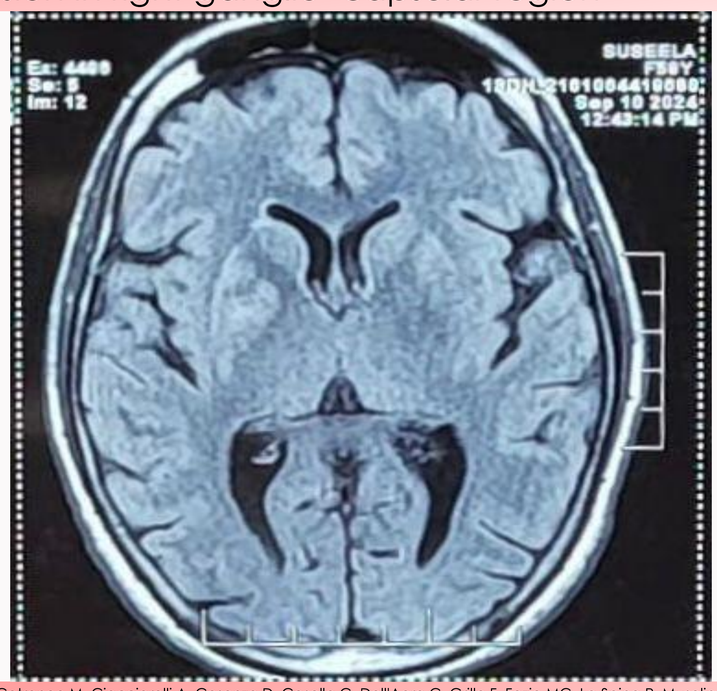
Case details:

- 58 years old female, c/o weakness and involuntary movements of left upper and lower limbs for 1 week. No h/o speech disturbance/ seizure/ nasal regurgitation. Known T2DM on OHA and Insulin
- **Examination:** Conscious, Oriented, afebrile
- No facial asymmetry
- Power Right UL 5/5 LL 5/5, Left UL 3/5 LL 3/5
- Plantar Right Flexor Left Extensor
- Left hemichorea present
- Blood investigations were unremarkable.
- ECG showed no AF, no ST-T changes. ECHO was normal.
- MRI Brain revealed acute infarct in right ganglio-capsular region.
- Patient treated with antiplatelets, statins, physiotherapy and other supportive measures.
- Symptomatically better. On regular follow up

MRI Images:



In DWI/FLAIR, MRI Brain showing hyperintense lesion in right ganglio- capsular region



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Discussion:

- Stroke results in early or delayed contralateral hemichorea in less than 1 percent of patients, although it is the most common cause of nongenetic chorea in the hospital population.
- Neuroimaging studies have demonstrated that vascular lesions of the basal ganglia and regions connected to the posterolateral putamen are the most common causes.
- Hemichorea described in relation to inflammatory, infectious, and neoplastic lesions.
- Autoimmune, genetic, and metabolic disorders (such as nonketotic hyperglycemia) are also well-known etiologies.
- In general, the diagnostic workup includes a detailed family and drug history, a general and neurological examination, specific blood tests, molecular genetic testing, and neuroimaging.
- Most affected individuals are Asian women in their 70s, suggesting the possibility of genetic predisposition.
- In most cases, there was complete resolution of hemichorea after revascularization, thus indicating that hemichorea was caused by hypoperfusion.

Conclusion:

Although it is an uncommon form of presentation, a sudden onset hemichorea should be considered an acute stroke until proven otherwise and treated as such.