

Periodic patterns in a patient affected by... : a case report with serial EEGs



SAPIENZA
UNIVERSITÀ DI ROMA

Dott. Adolfo Mazzeo
Neurology Resident
Department of Human Neurosciences

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INTRODUCTION

- M.T., 76 yo, female
- Family hx: nihil
- Past medical hx: dyslipidemia, diabetes mellitus type II, arterial hypertension
- Presenting complaint:
 - 11/06/21: fever, vomiting, diarrhea
 - 15/06/21: confusion > subacute stroke?
 - 17/06/21: tonic-clonic seizures

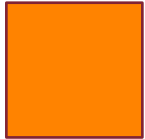
Neurological examination

Awake, normal cranial nerves, mild right hemiparesis, mixed aphasia

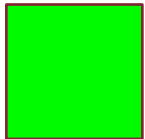
WHAT WOULD YOU DO?



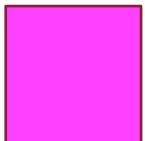
CSF analysis



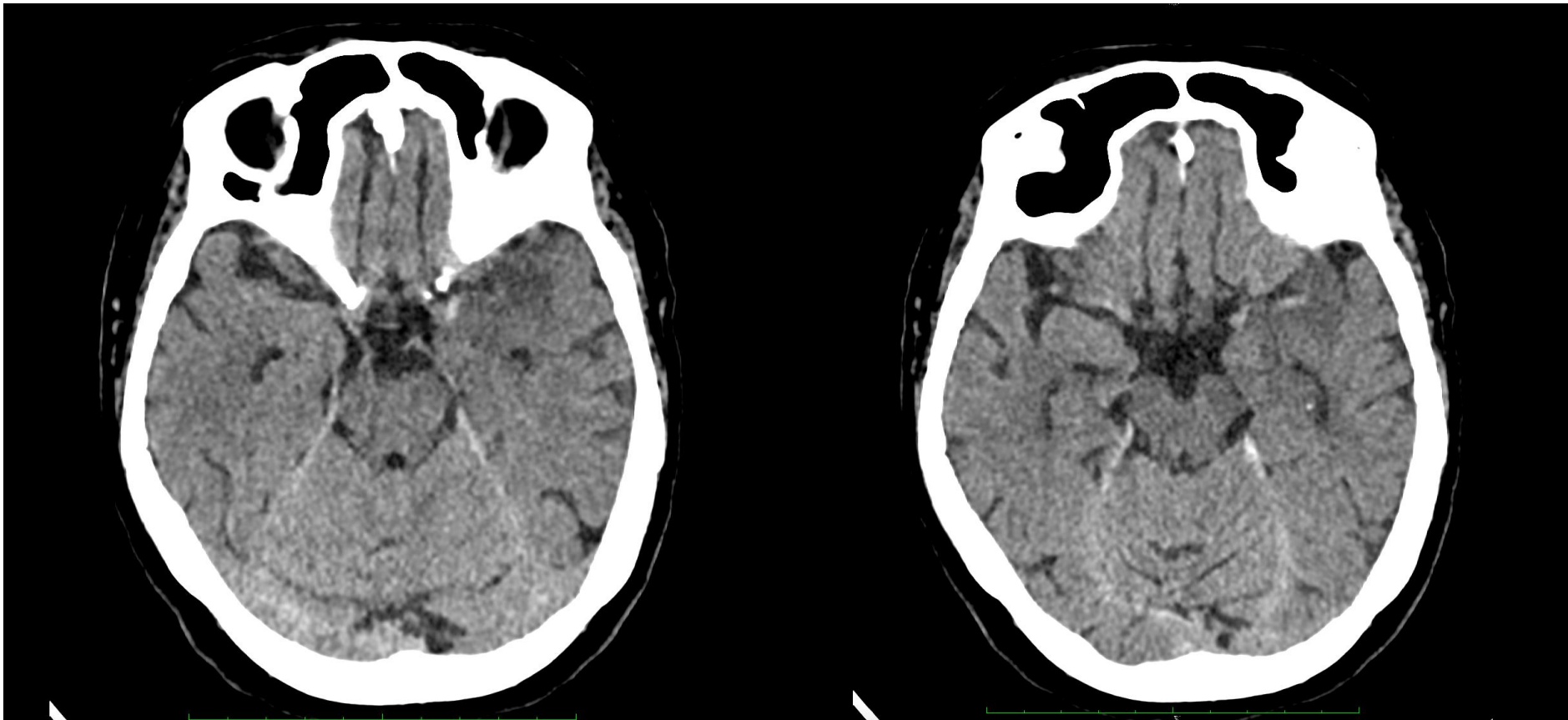
EEG

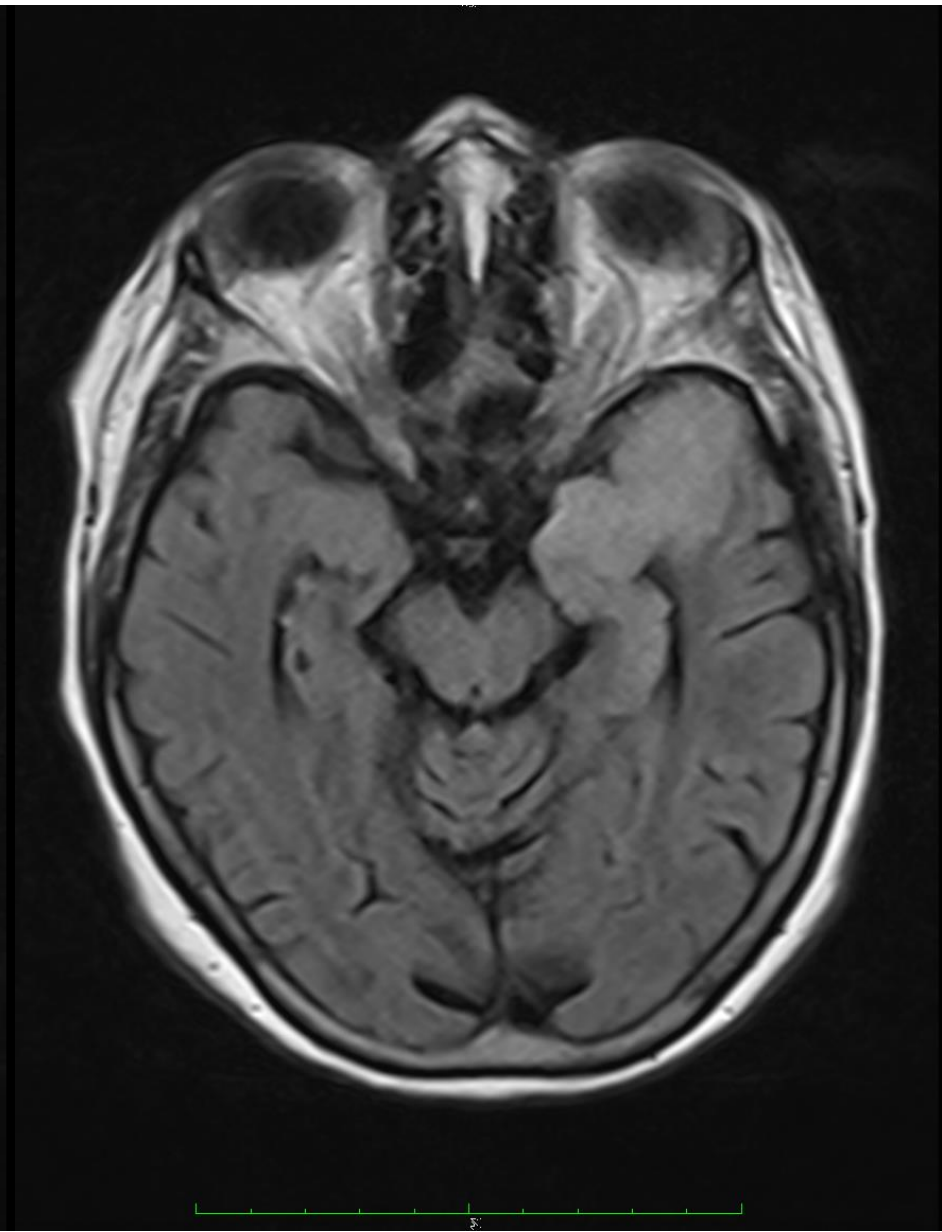
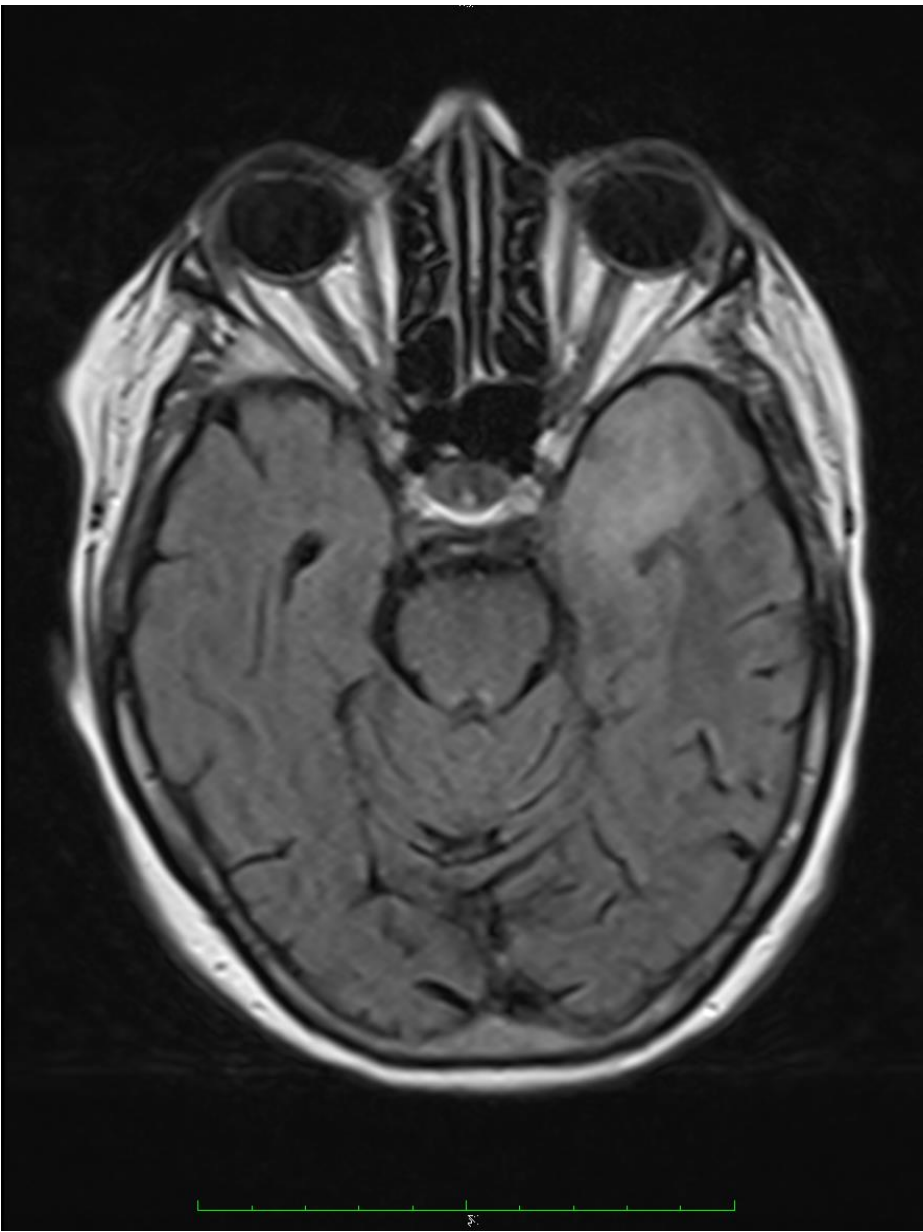


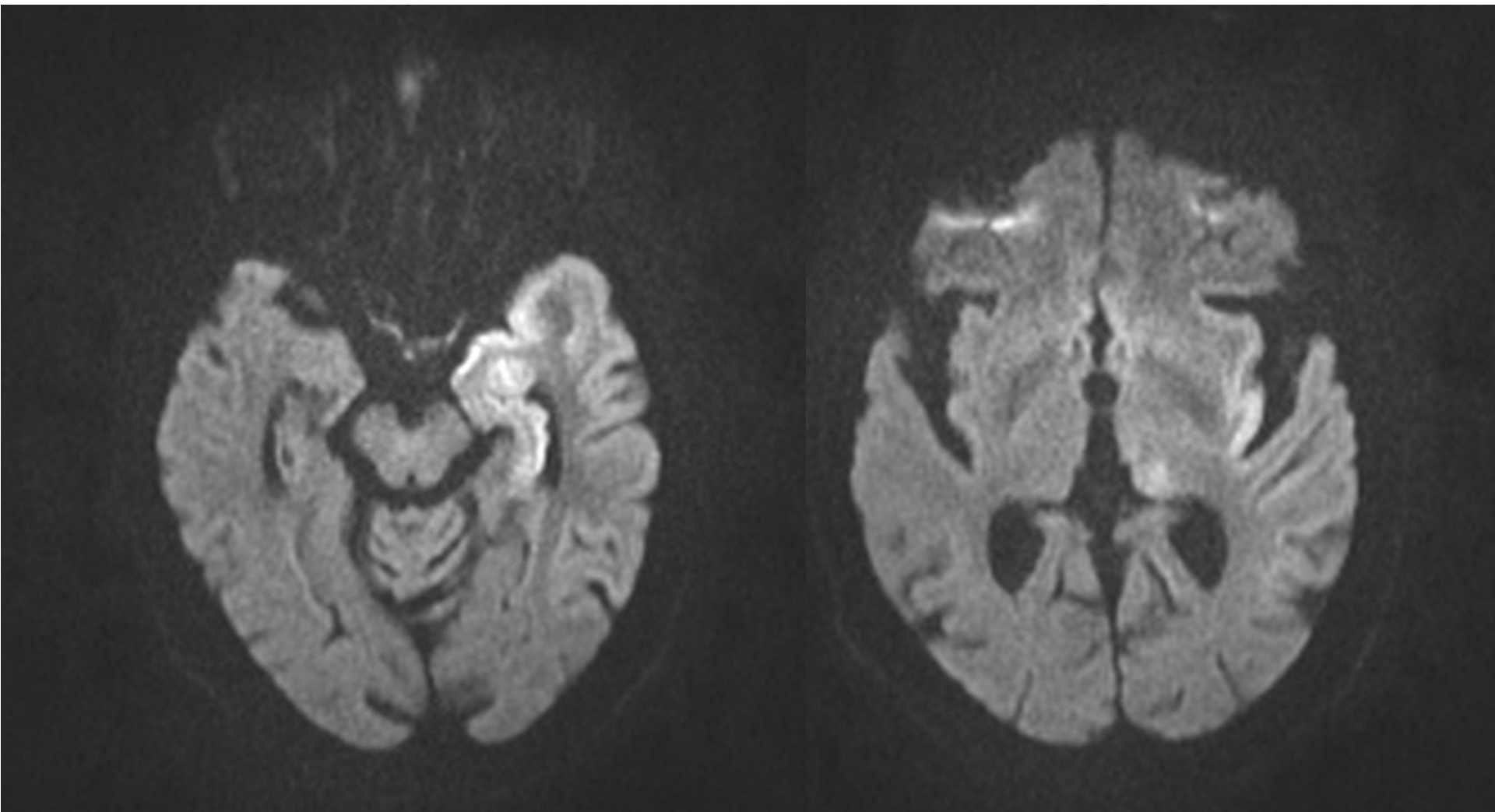
Brain CT

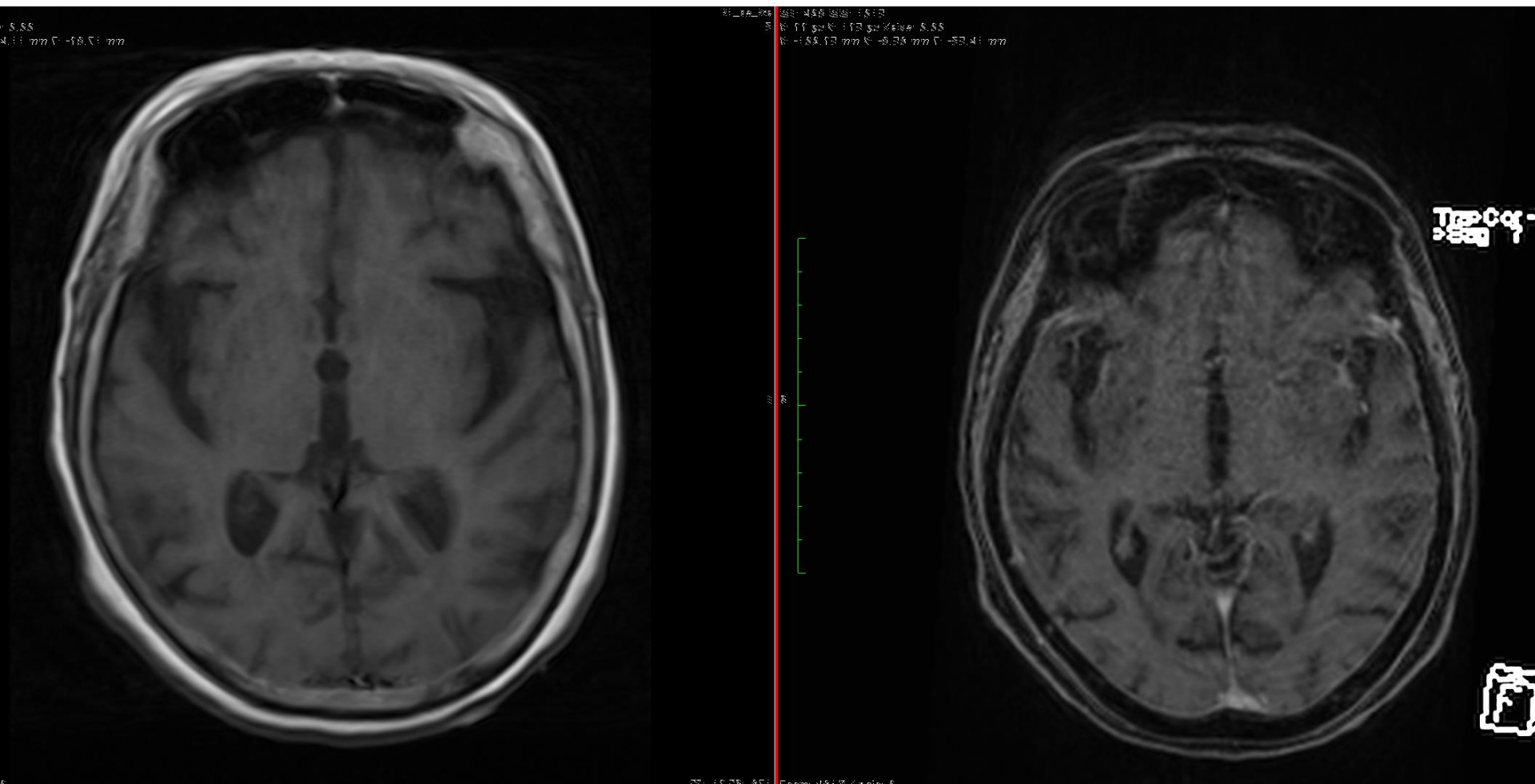


Brain MRI









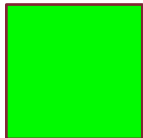
WHAT WOULD YOU SUSPECT?



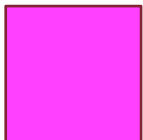
Autoimmune encephalitis



Diffuse astrocytoma of the temporal lobe



Stroke

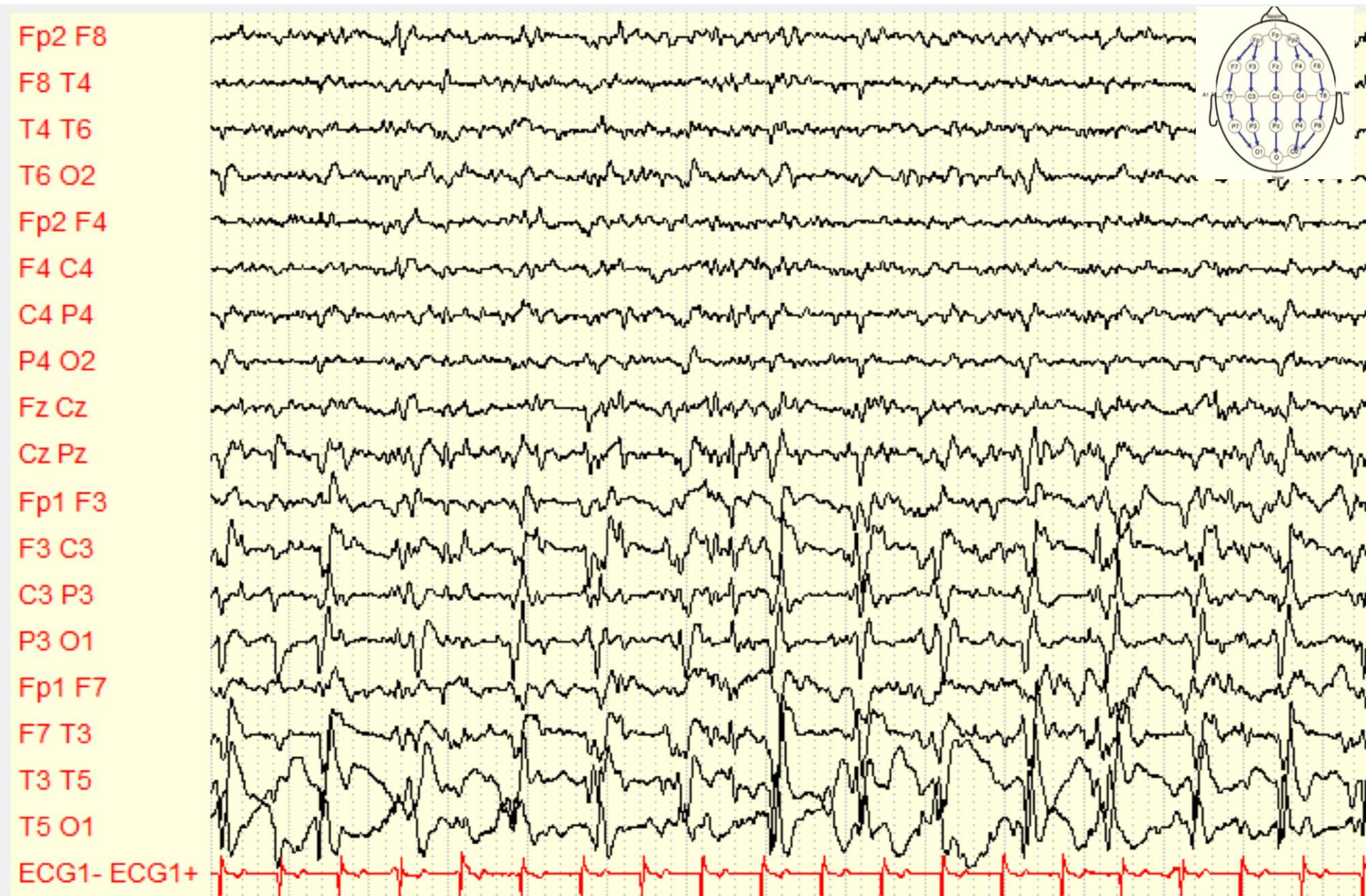


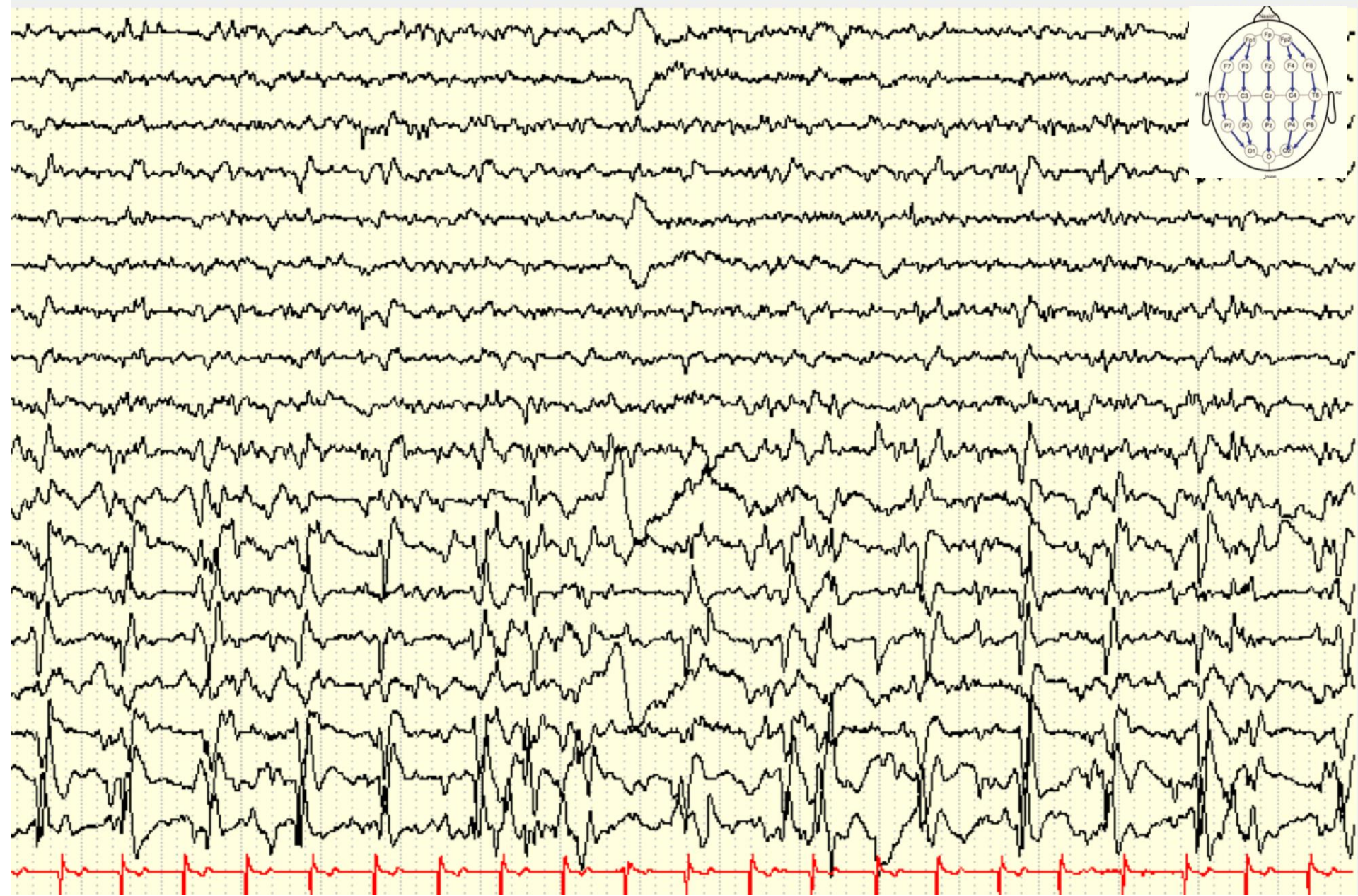
Other?

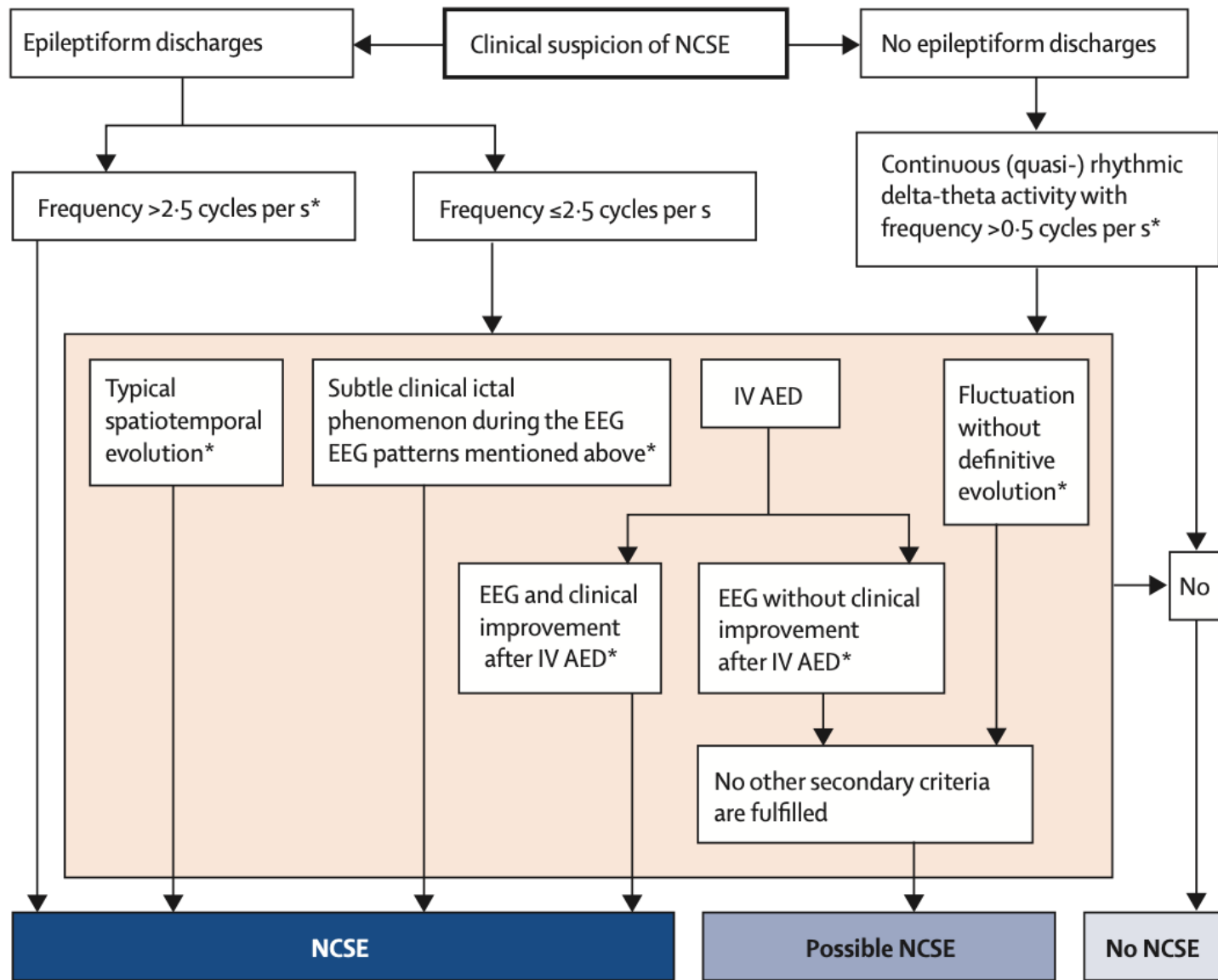
CSF ANALYSIS

- Cells: 250 RBCs, 400 WBCs (95% lymph, 5% neutro)
- Protein: 47 mg/dl (vn < 45)
- IgG: 76 mg/L (vn 27-35)
- Glucose: 40 mg/dl
- Film array: positive for HSV1
- Virology: positive for HSV1 (16899 copies)

HSV1 ENCEPHALITIS ⇒ ACICLOVIR + GC (18/06)





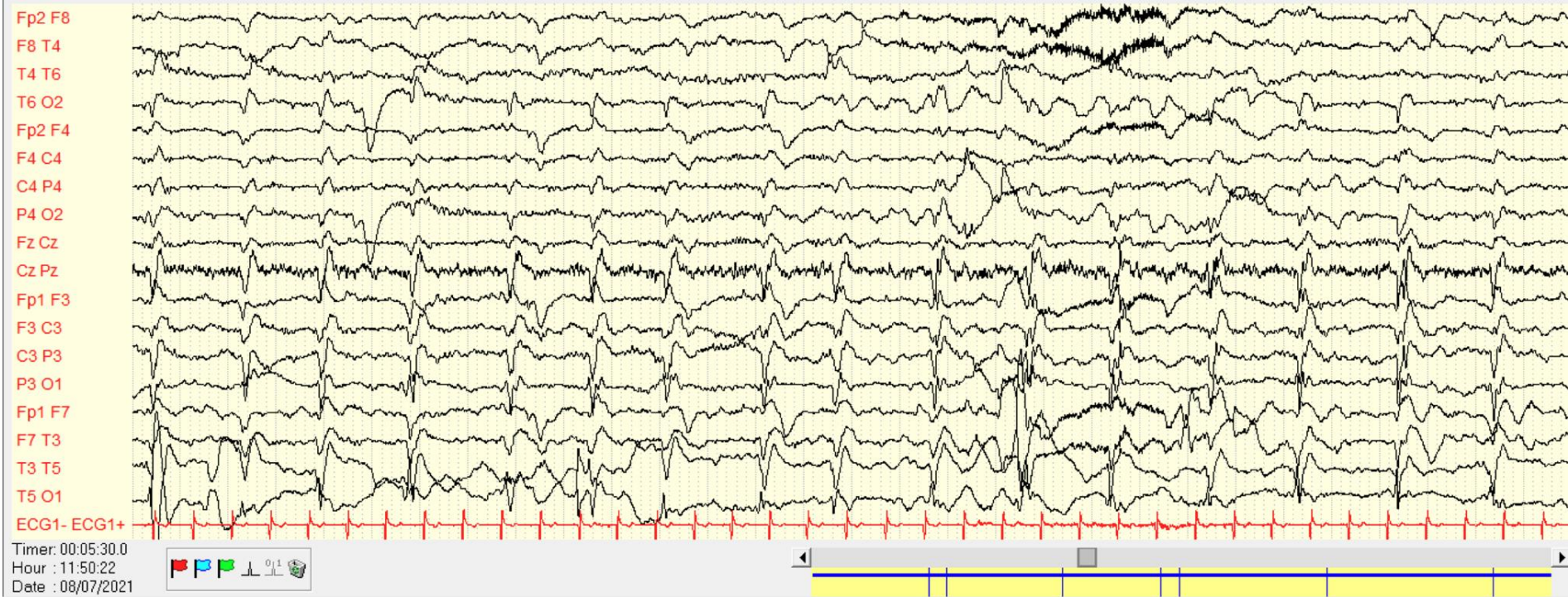


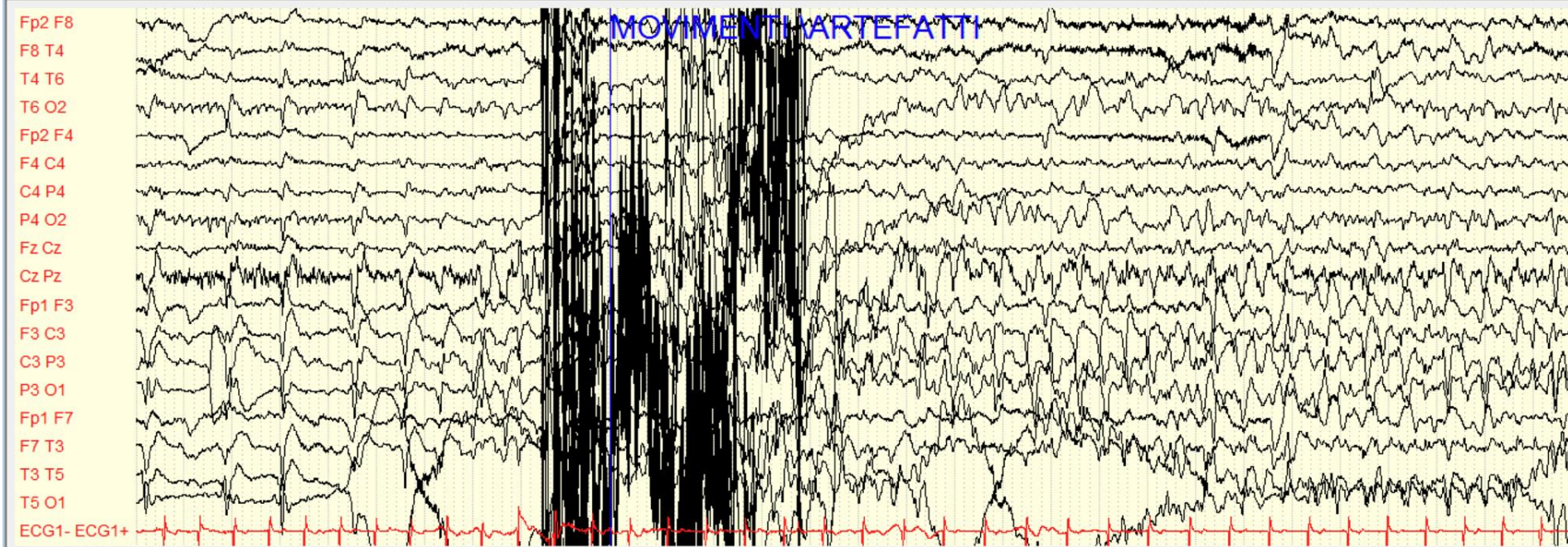
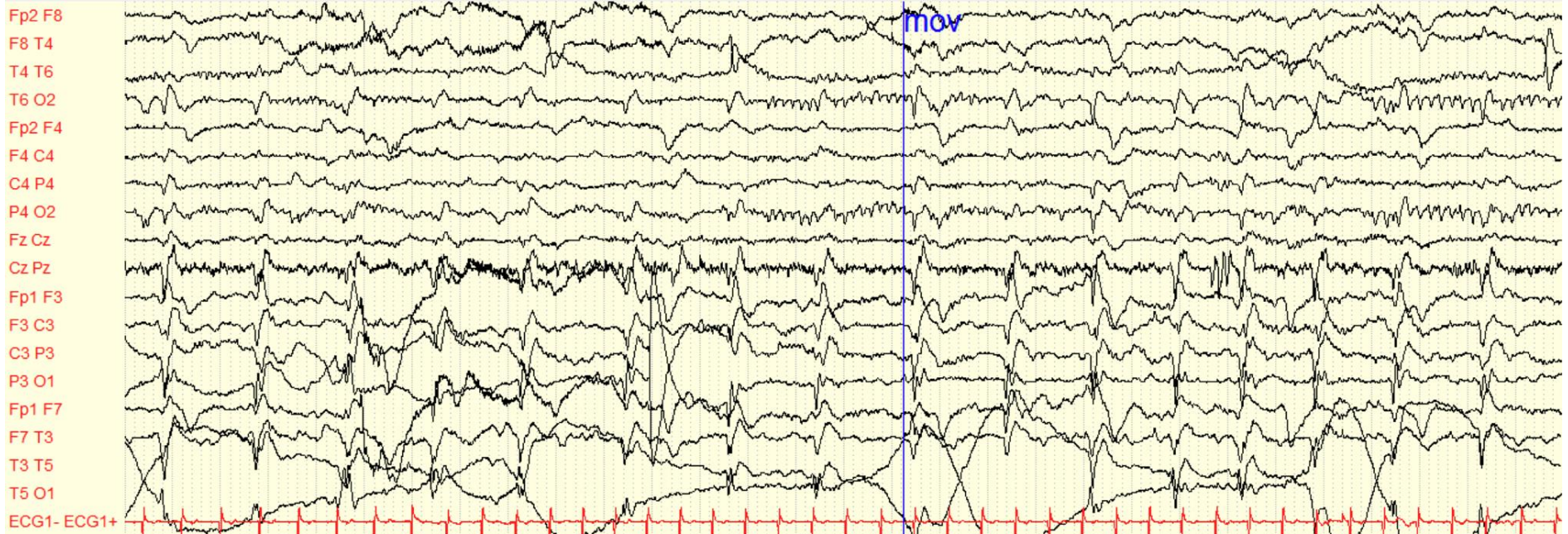
Something changes...

Awake, normal cranial nerves, mild right hemiparesis, mixed aphasia, hemispatial neglect



Right orofacial spasms



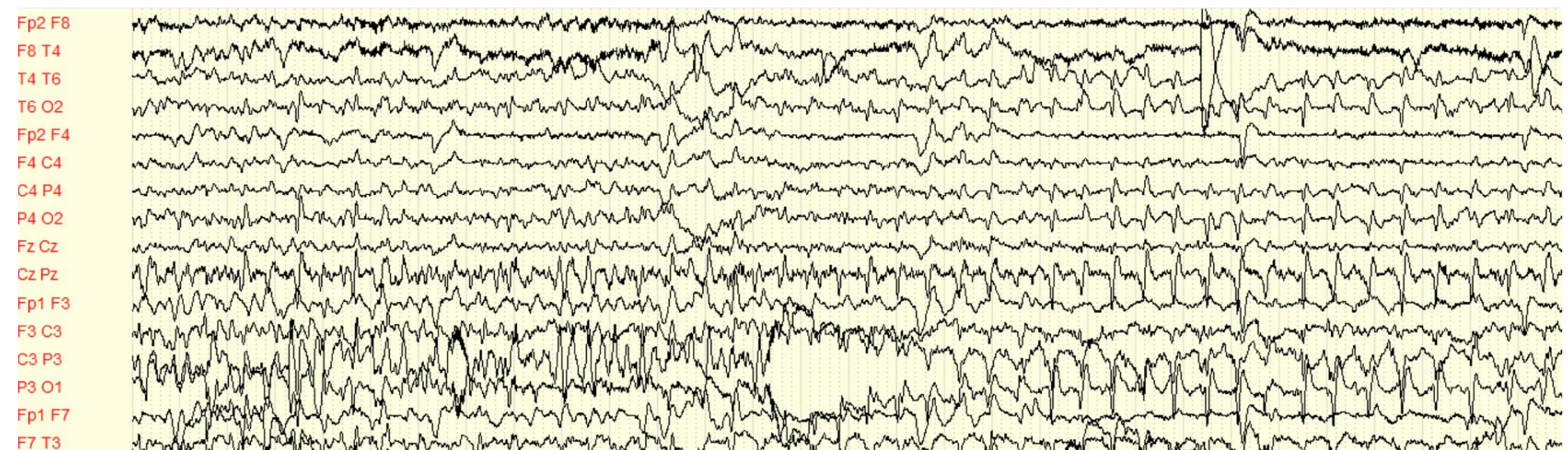


Timer: 00:07:20.0

Hour : 11:52:12

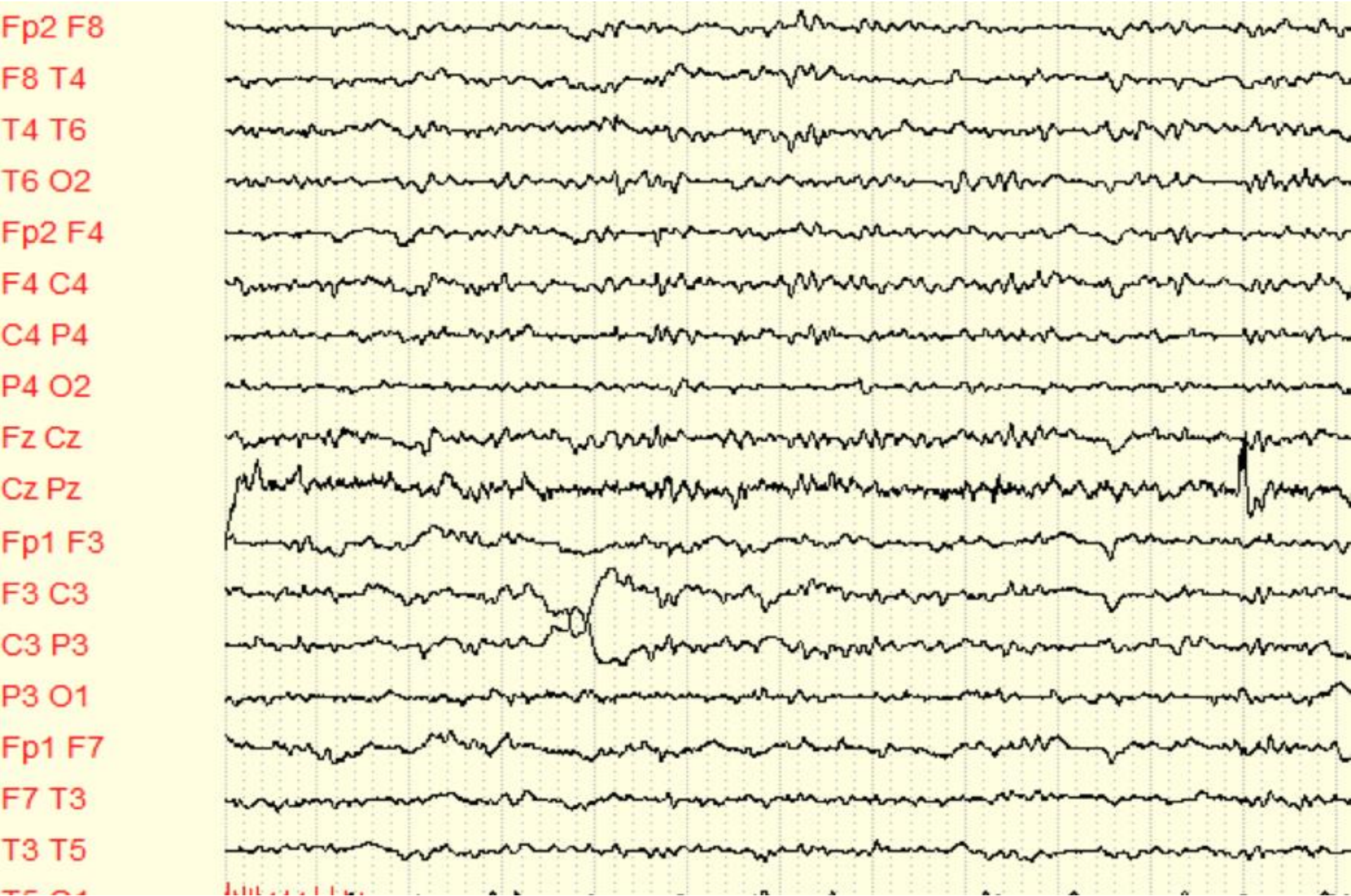
Date : 08/07/2021





VPA 1600 mg > 800 mg x 2

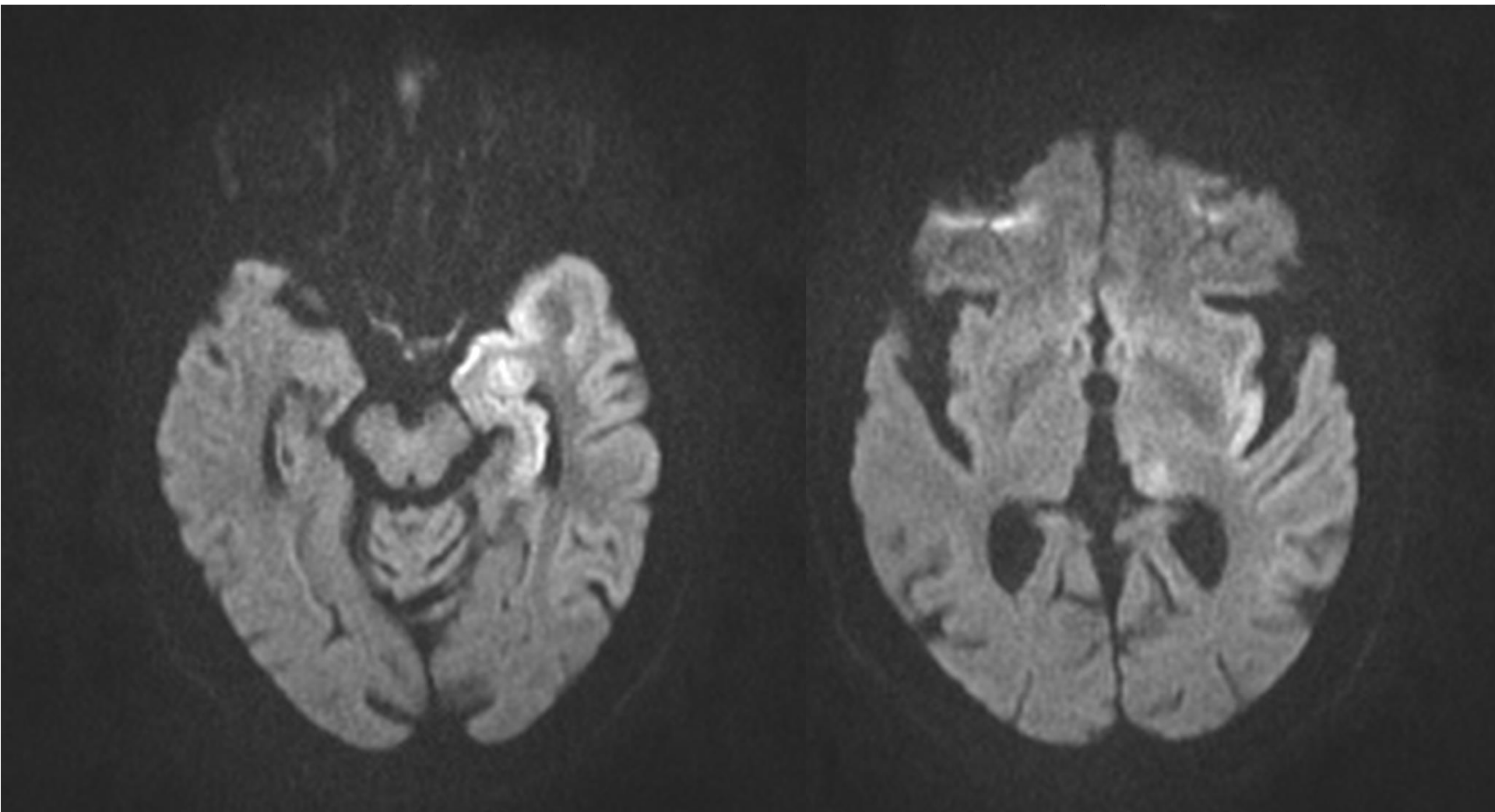


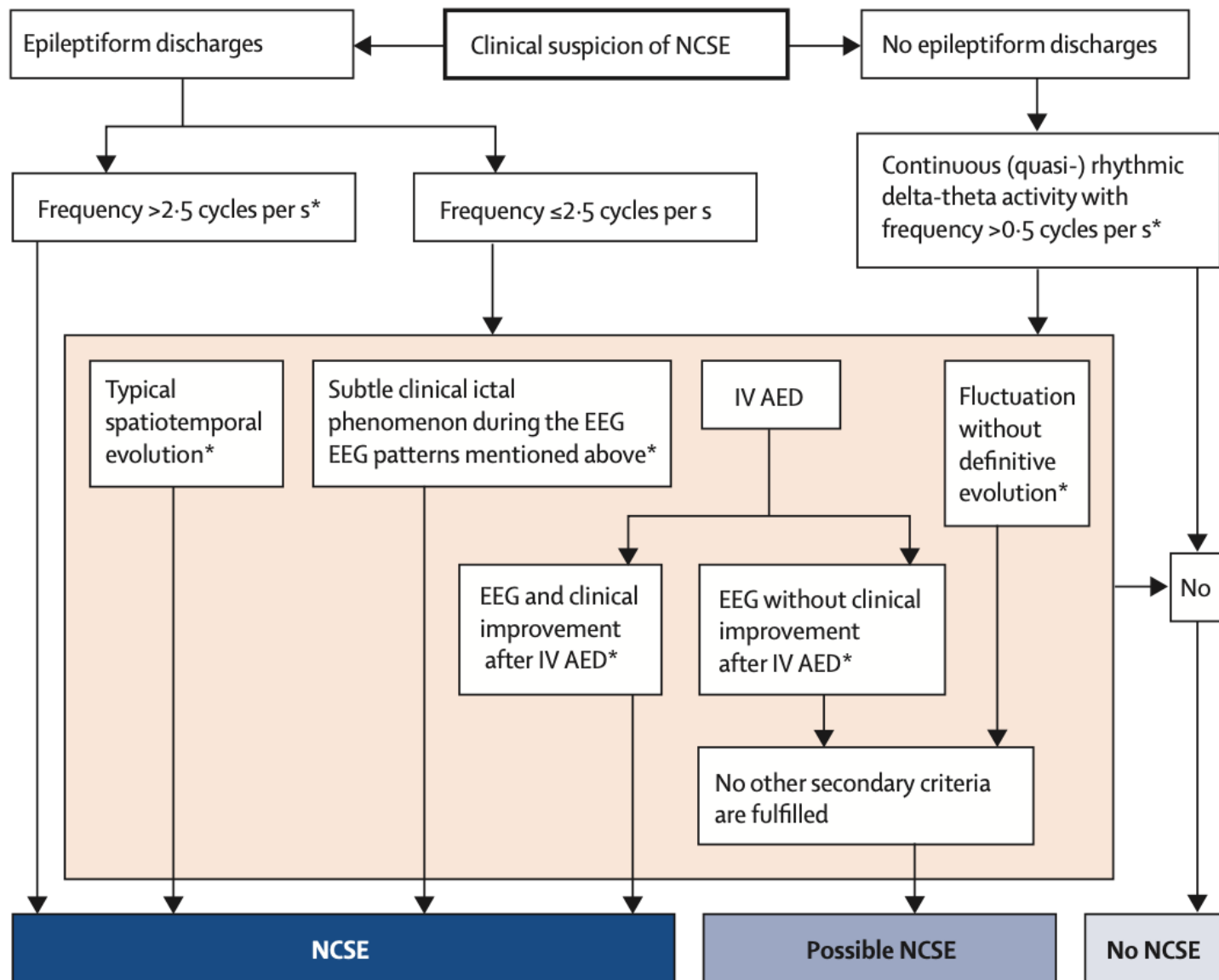




WAS IT A NCSE ALL ALONG?

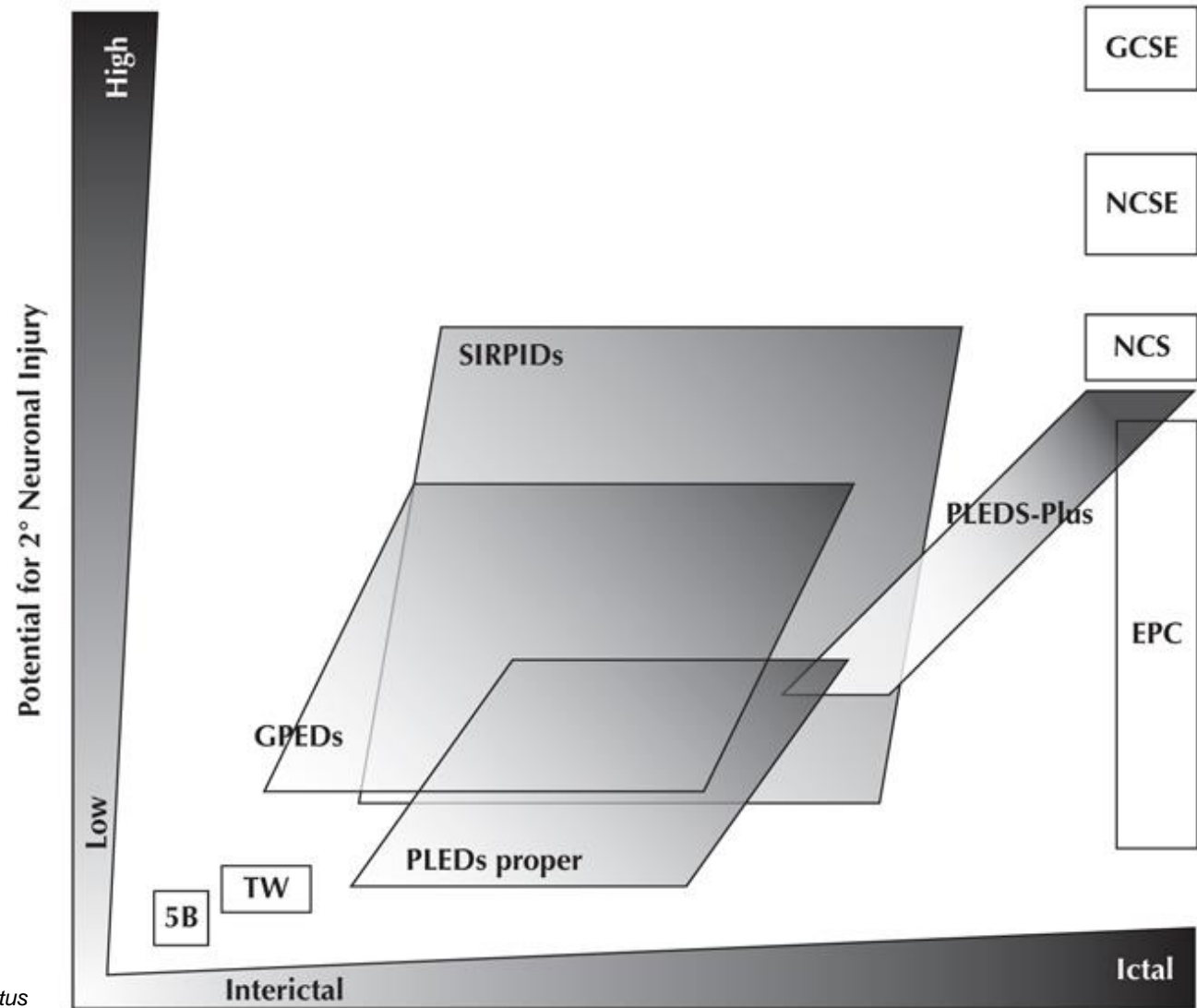
- Classically HSV-1 encephalitis is associated with LPDs, as a result of neuronal injury
- In our case minimal motor signs prompted us to suspect something more
- Electroclinical seizure on EEG
- Clinical improvement after ASMs (EEG and clinically)
- Peri-ictal changes on MRI?





Leitinger et al.,
Lancet Neurol
2016;15:1054-62

The Ictal-Interictal-Injury Continuum



Shuli Cheng. Non-convulsive status epilepticus in the elderly. *Epileptic Disorders*. 2014.

Take-home messages

- LPDs are common in HSV1 encephalitis
- Periodic discharges can be ictal
- Remember Salzburg criteria
- ASMs help in discriminating between ictal, post-ictal and lesional symptoms
- These phenomena are part of the ictal-interictal-injury continuum

THANKS FOR THE ATTENTION

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