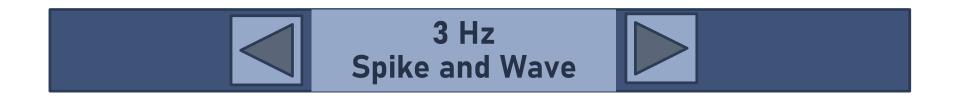
ICTAL EEG PATTERNS IN GENERALIZED SEIZURE



Chonpivat Treepong, MD Epilepsy Unit, Department of Neurology Prasat Neurological Institute



Generalized, bisynchronous, symmetric spike and wave pattern





3 Hz Spike and Wave



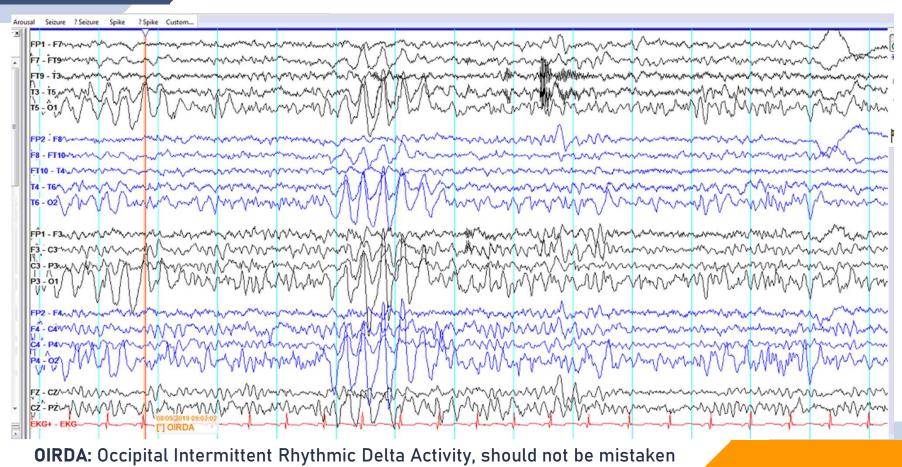


3 Hz Spike and Wave

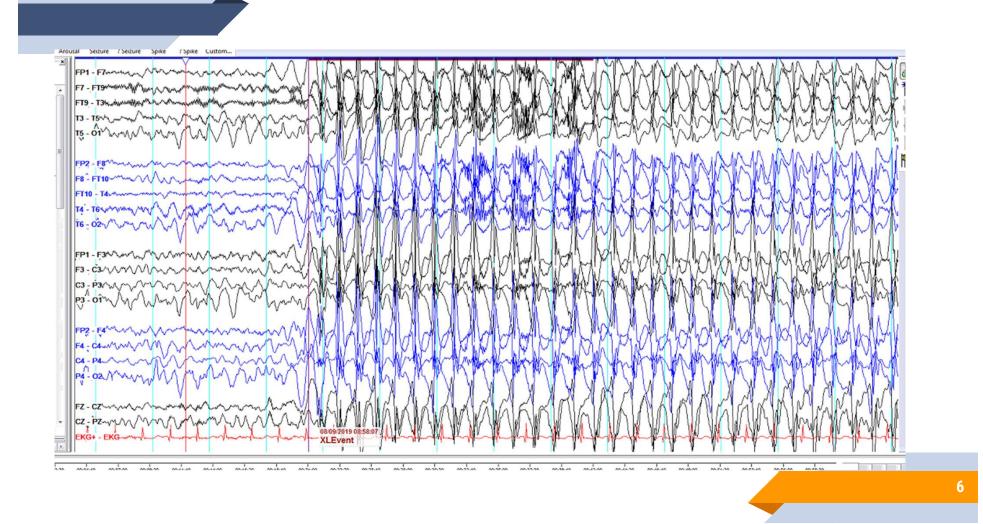


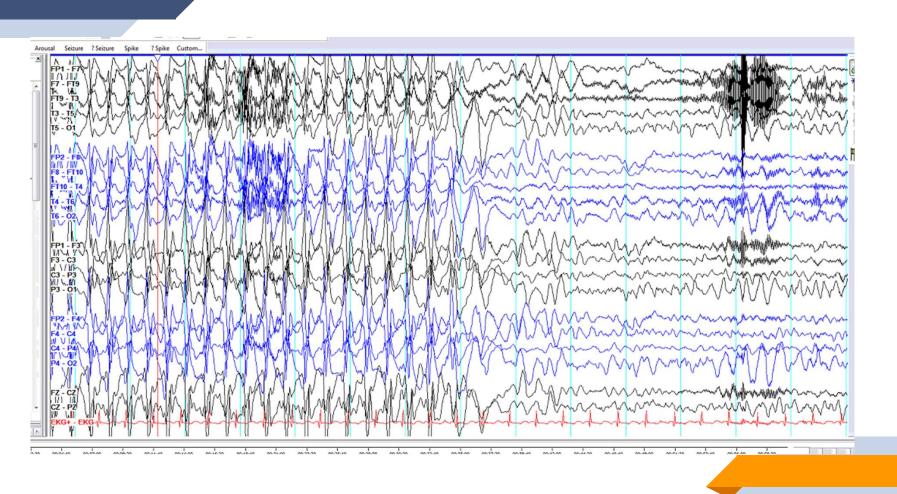
- Mostly associated with absence seizure (95%)
- May be associated with clinical absence seizure if longer than 3-4 s
- More fragmented fashion if occur during sleep
- Activated by hyperventilation and hypoglycemia
- Usually normal EEG background patterns, cognitive and neurologically





for partial onset seizure.





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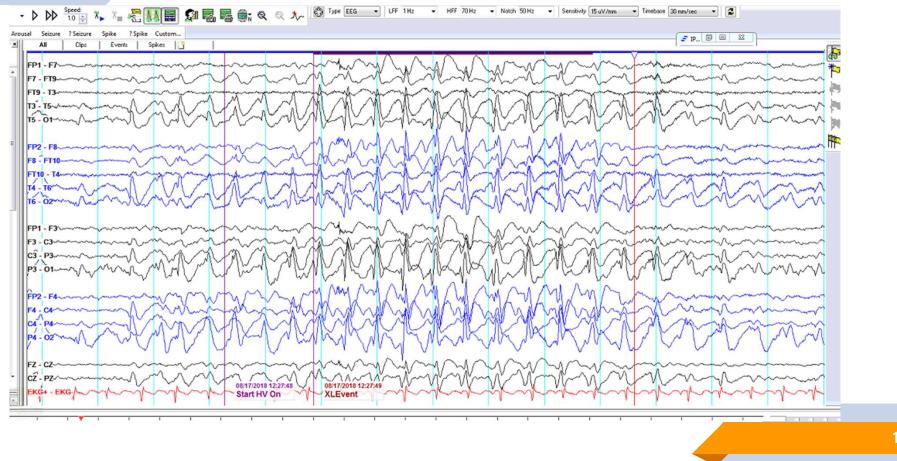
< 3 Hz Spike and Wave (Slow Spike and Wave)</pre>

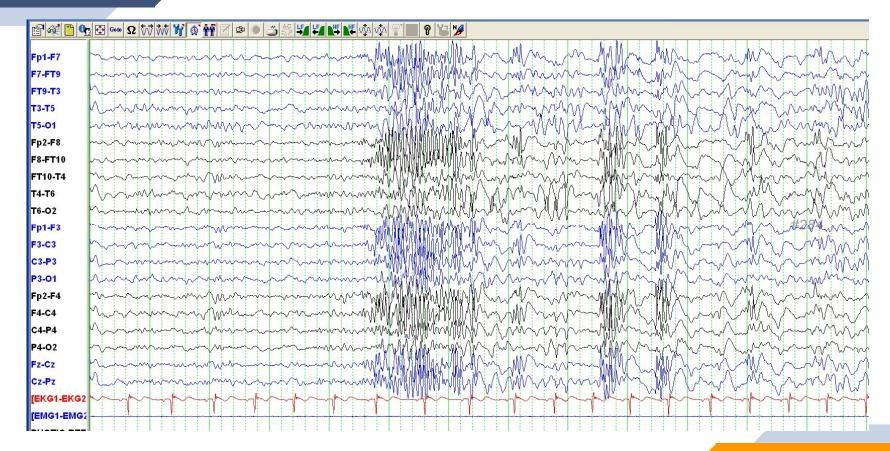


< 3 Hz Spike and Wave (Slow Spike and Wave)

- Sharp and slow wave complexes
- Occur at a frequency of 1–2.5 Hz
- May be asymmetric and alternating focal predominance between hemispheres
- May be **enhanced during drowsiness**
 - E.g. Lennox-Gastaut Syndrome







Paroxysmal fast activity

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C3-P3	
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Fp2-F4	
F4-C4	
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Cz-Pz	man and man man was a start and a start was the second day of the second start the second start of the second s
[EKG1-EKG	
[EMG1-EMG	Paroxysmal fast activity

🗱 Theerapatr	
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C3-P3	Man have have have have have have have have
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F4-C4	
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P4-02	Man
Fz-Cz	
Cz-Pz	
[EKG1-EKG	32
[EMG1-EM	⁶² http:///////////////////////////////////

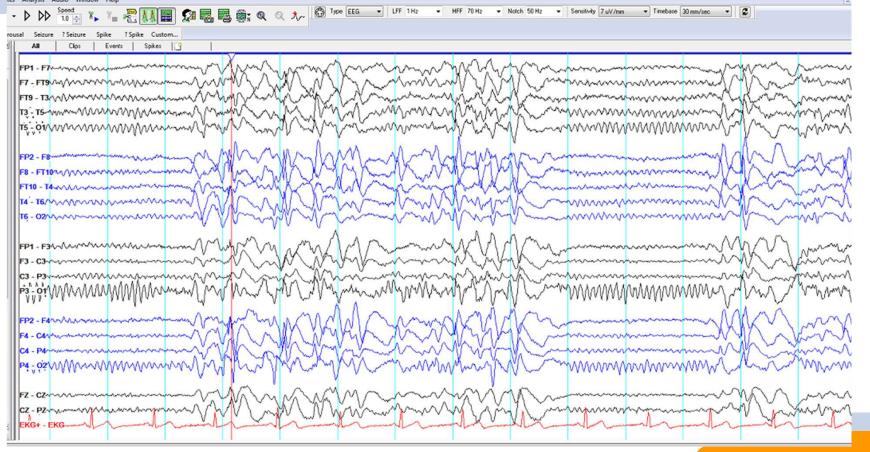
> 3 Hz Spike and Wave (Atypical Spike and Wave)



> 3 Hz Spike and Wave (Atypical Spike and Wave)

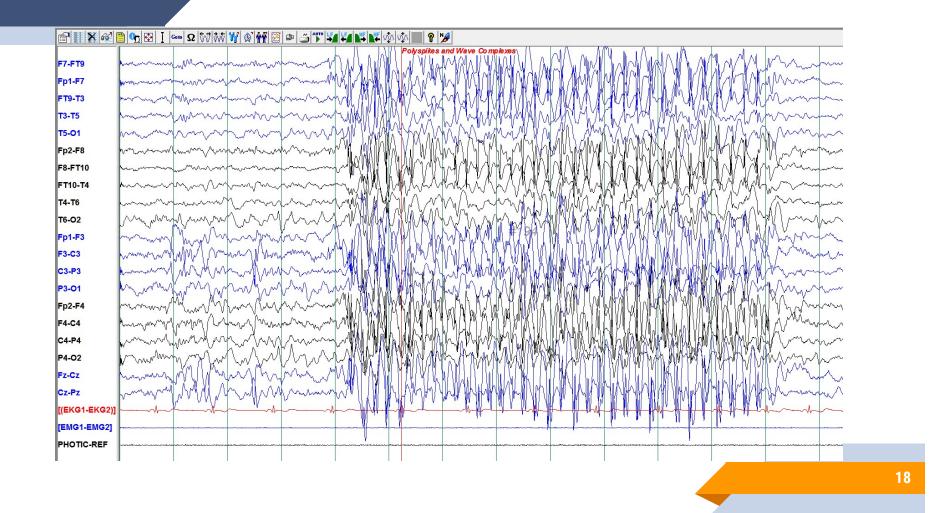
- Higher-frequency generalized discharges vary from 4-7 Hz
- **Does not** show the stereotype appearance
- May be **asymmetric** between the hemispheres
- May be mixed with **polyspikes** and **multiphasic** spikes
- Usually duration is brief ranging from 1-3 s
- Commonly associated with juvenile myoclonic epilepsy (JME)





tes Analysis Audio Window Help

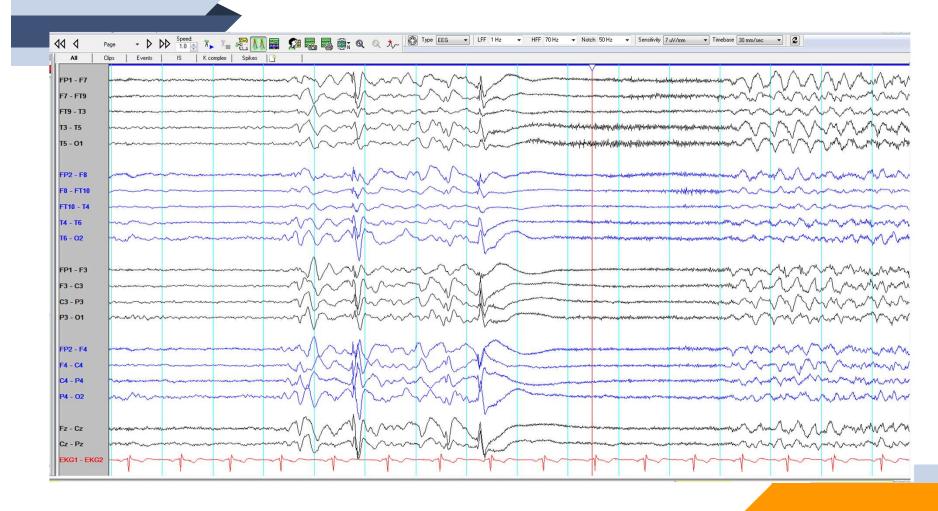
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EKG+ - EKG-	



Focal onset with secondary *bisynchrony* from the rapid contralateral propagation of a focal discharge through the interhemispheric fibers.

e.g. focal seizure from medial or orbitofrontal regions.

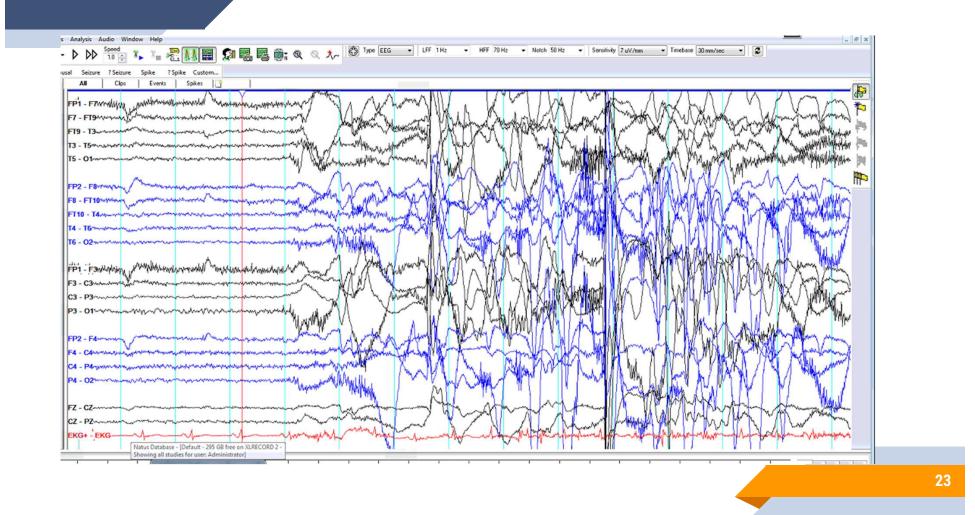


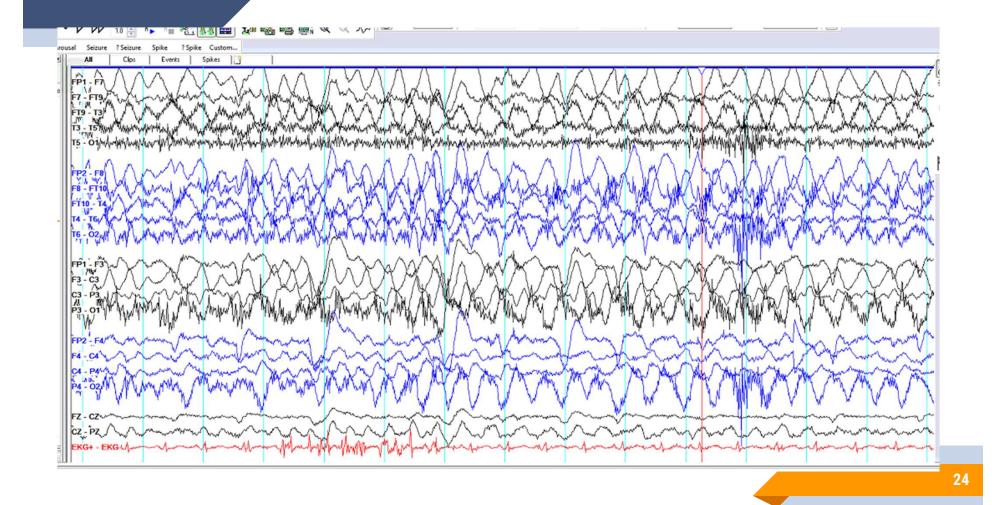


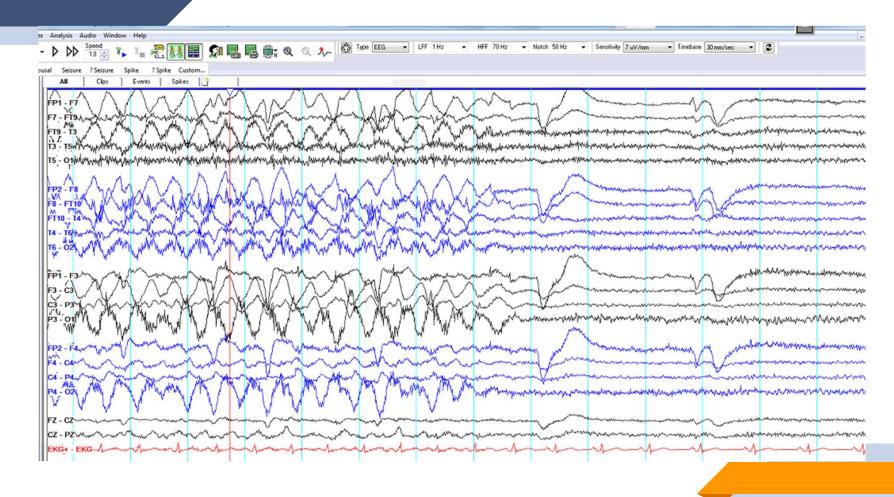
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EKG1 - EKG2	
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Looked alike generalized epileptiform activities, but it is not.













เมื่อเจอคนทำลัง**"ชัก**"



ไม่ทั้งหมด **ชักจะหยุดเอง**

แค่ดูแลให้ชักอย่างปลอดภัย และนำส่งโรงพยาบาลเมื่อชักนานหรือชักต่อเนื่อง