Supplementary figures

Figure 1. Patients 1, 2, 3 and 5 during wakefulness. **A**) Patient 1 (a 9-month-old girl): posterior basic rhythm in the theta band, mixed with high-voltage slow delta waves predominating on the right side, with rare posterior spikes. **B**) Patient 2 (a 13-month-old boy): abundant bilateral independent high-voltage occipital spikes, sharp waves, and fast rhythmic bursts. **C**) Patient 3 (an 11-month-old boy): posterior basic rhythm in the theta band, mixed with rare right-predominating occipital spikes. **D**) Patient 5 (a 10-month-old girl): abundant bilateral independent high-voltage occipital spikes with spike waves and polyspikes.

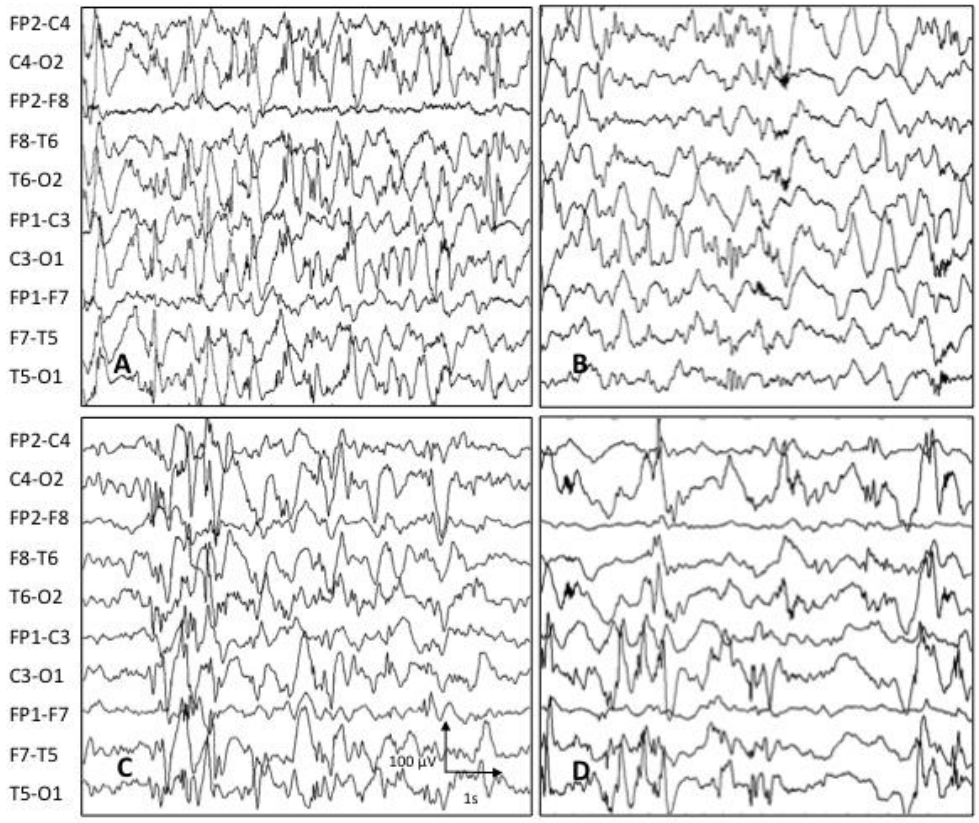

Figure 2. Patients 1, 2, 3 and 5 during wakefulness demonstrating an absence of physiological sleep graphoelements and important activation of occipital anomalies without any hypsarrhythmia. **A**) Patient 1 (a 9-month-old girl); **B**) Patient 2 (a 13-month-old boy); **C**) Patient 3 (an 11-month-old boy); **D**) Patient 5 (a 10-month-old girl).

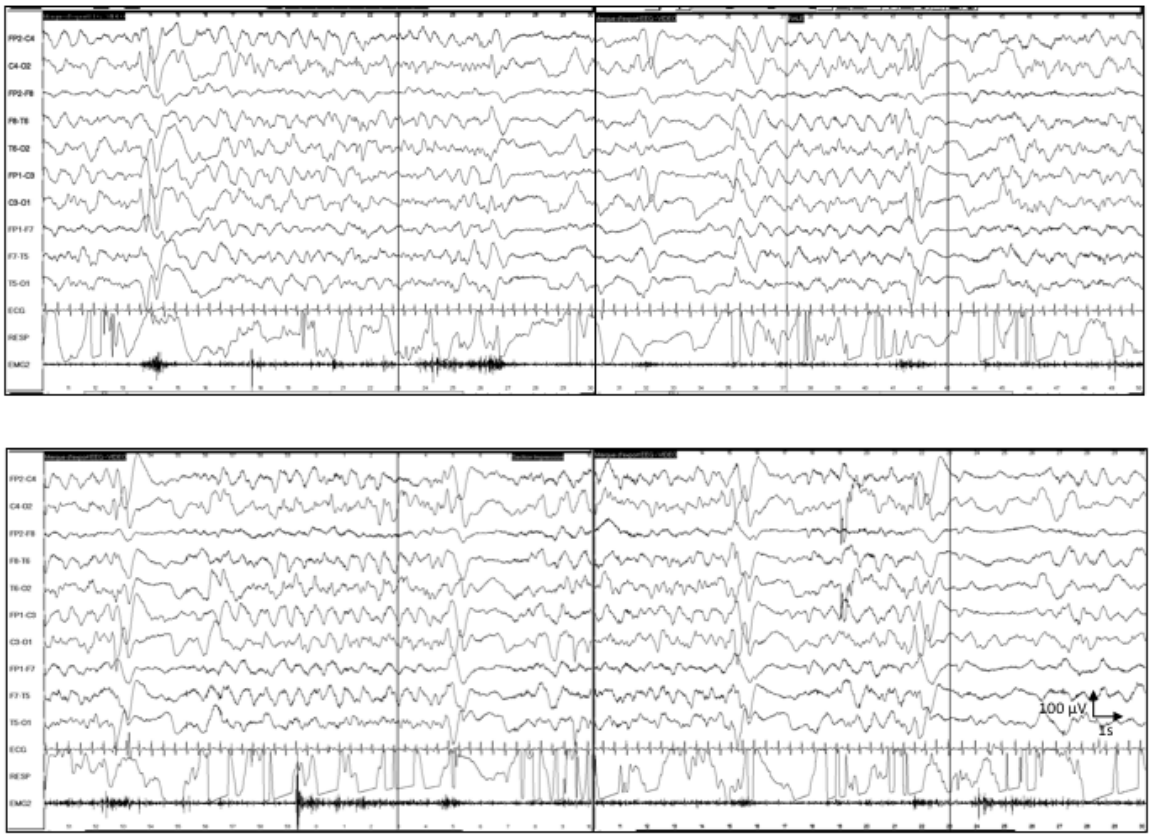

Figure 3. Patient 1 (a 9-month-old girl) with a cluster of spasms: subtle brief tonic contractions were recorded on surface EMG (EMG2: left deltoid), concomitant with a diffuse high-voltage slow-wave complex, followed by diffuse flattening of the tracing with superimposed fast rhythms, progressively changing the aspect to a diffuse sharp wave. In between spasms, background activity changed with rhythmic delta activity predominant over anterior regions.

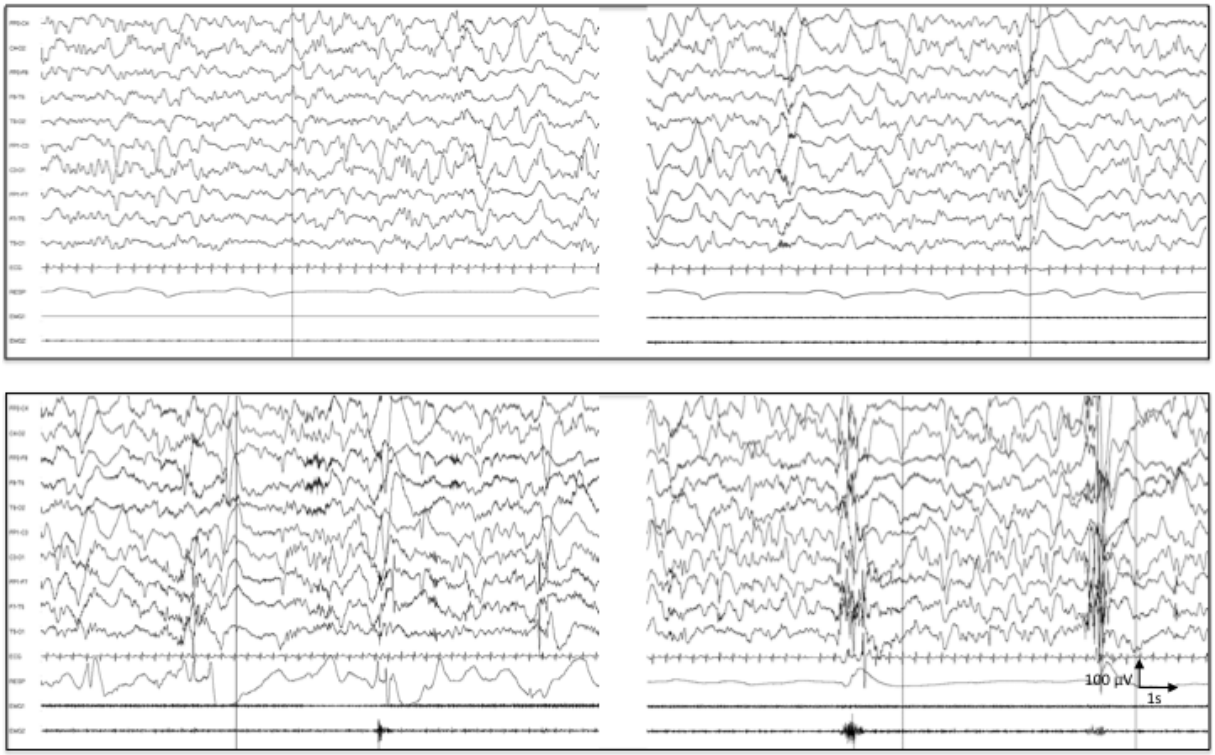

Fig 4 patient 3 diallo cluster of spasms

Figure 4. Patient 2 (an 18-month-old boy) demonstrating the beginning, middle and end of a cluster of spasms (EMG2: right deltoïd; ECG: left deltoid). The initial exclusive eye revulsions and the later motor events were concomitant with a diffuse high-voltage slow wave, sometimes preceded or mixed with occipital fast rhythms, and followed by diffuse flattening with intermingled posterior theta/alpha rhythms, with a progressively changing aspect to a burst of diffuse high-voltage polyspikes, followed by electrodecrement. Background activity in between spasms changed with the appearance of rhythmic delta waves over anterior regions, sometimes predominating on the left fronto-temporal area.

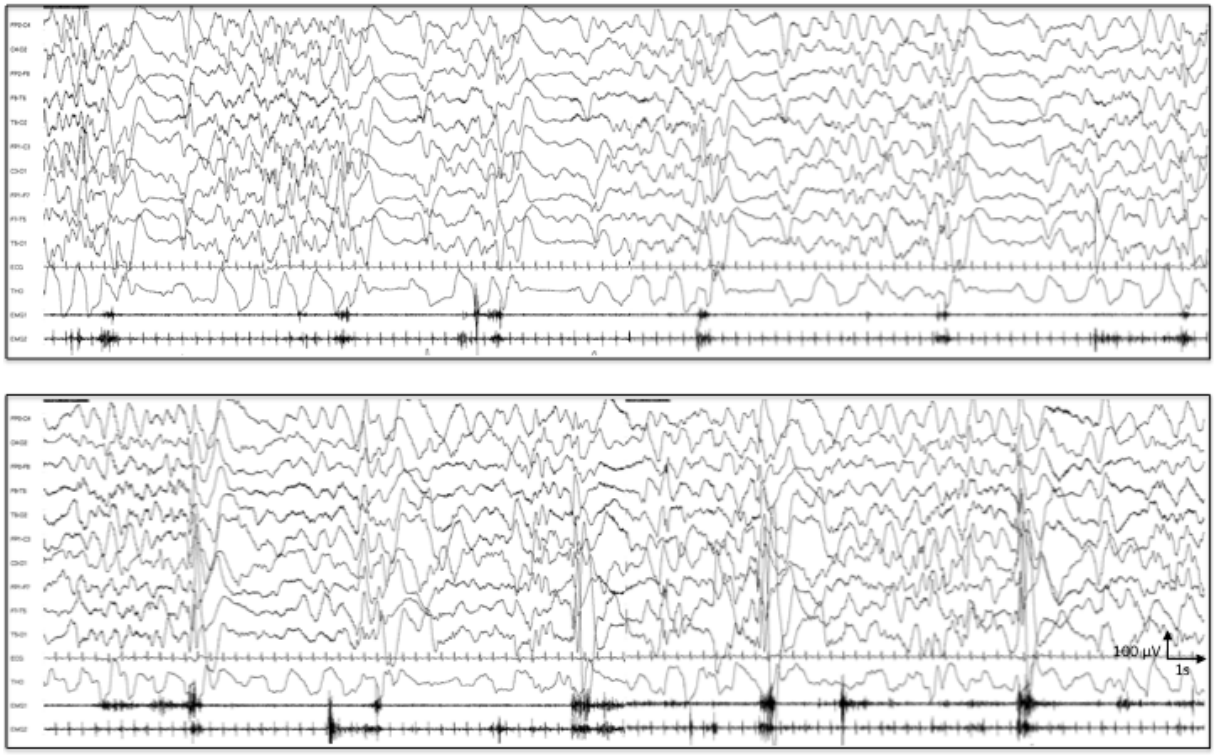

Figure 5. Patient 3 (an 11-month-old boy) with a cluster of spasms upon awakening. The clinical manifestations were concomitant on EEG with a diffuse high-voltage slow wave, followed by diffuse flattening, sometimes associated with fast rhythms, which were progressively modified into sharp waves, and then spikes. In between spasms, background activity changed with the appearance of rhythmic high-voltage delta waves, predominating over the right anterior area.

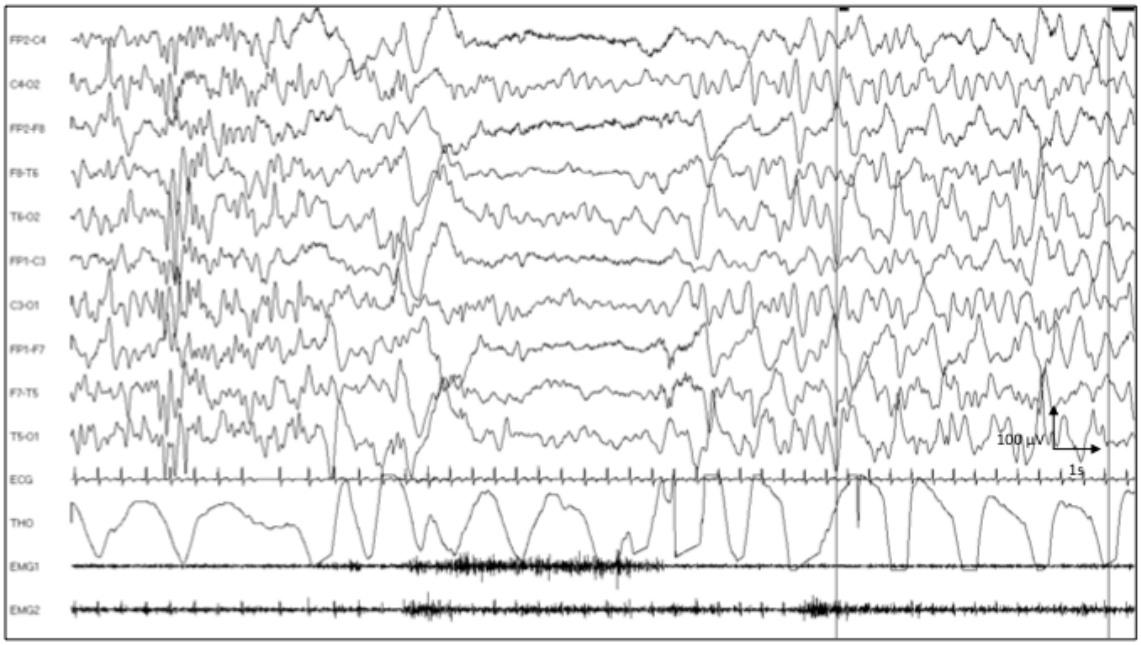

Figure 6. Patient 3 (an 11-month-old boy) demonstrating an isolated tonic spasm.

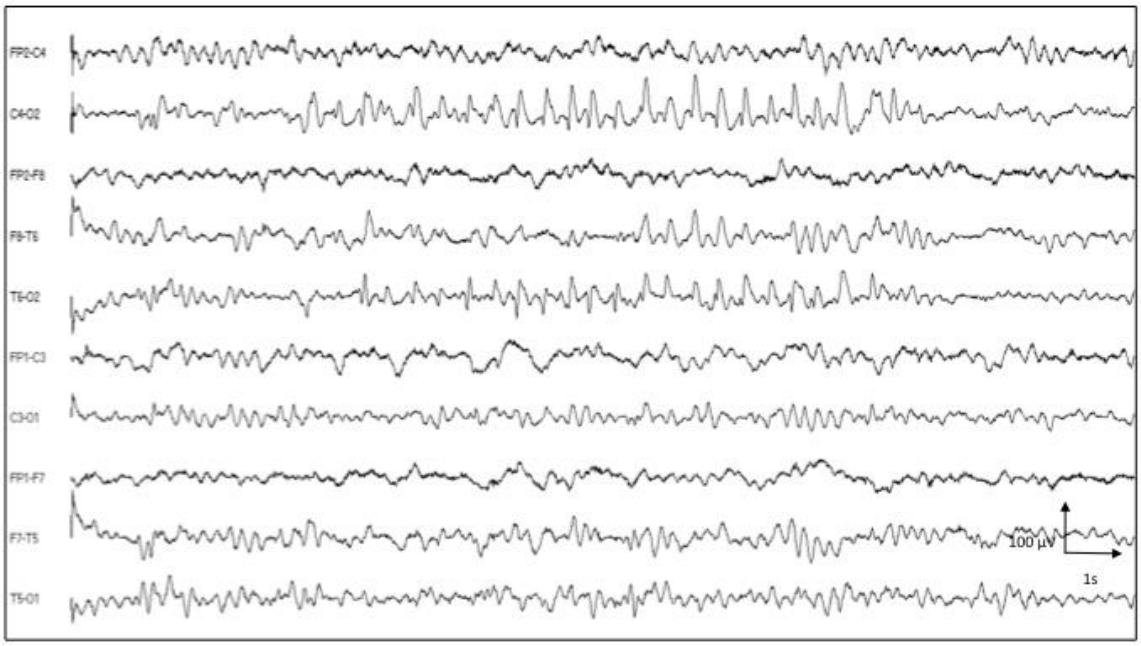

Figure 7. Patient 3 (a 21-month-old boy) during wakefulness with subclinical right spike discharge.

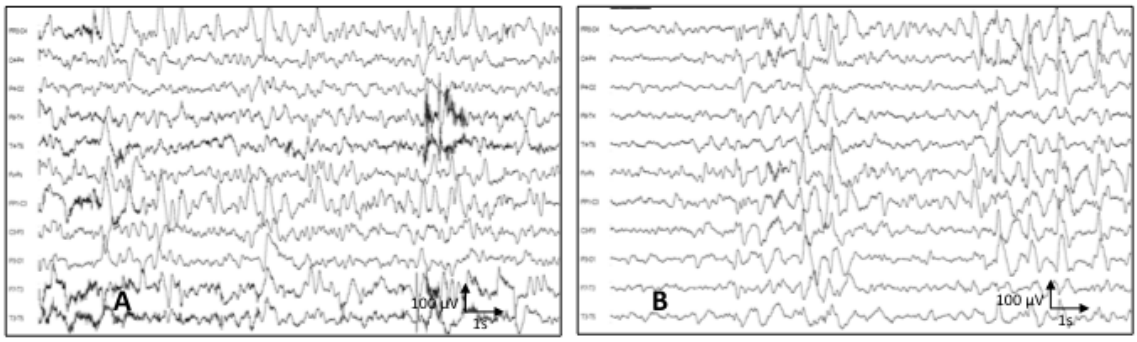

Figure 8. Patient 4 (a 4-year-old boy). **A**) During wakefulness: high-voltage theta and delta rhythms with fronto-temporal predominance; **B**) during sleep: physiological features of sleep (spindles); bilateral fronto-temporal sharp waves.

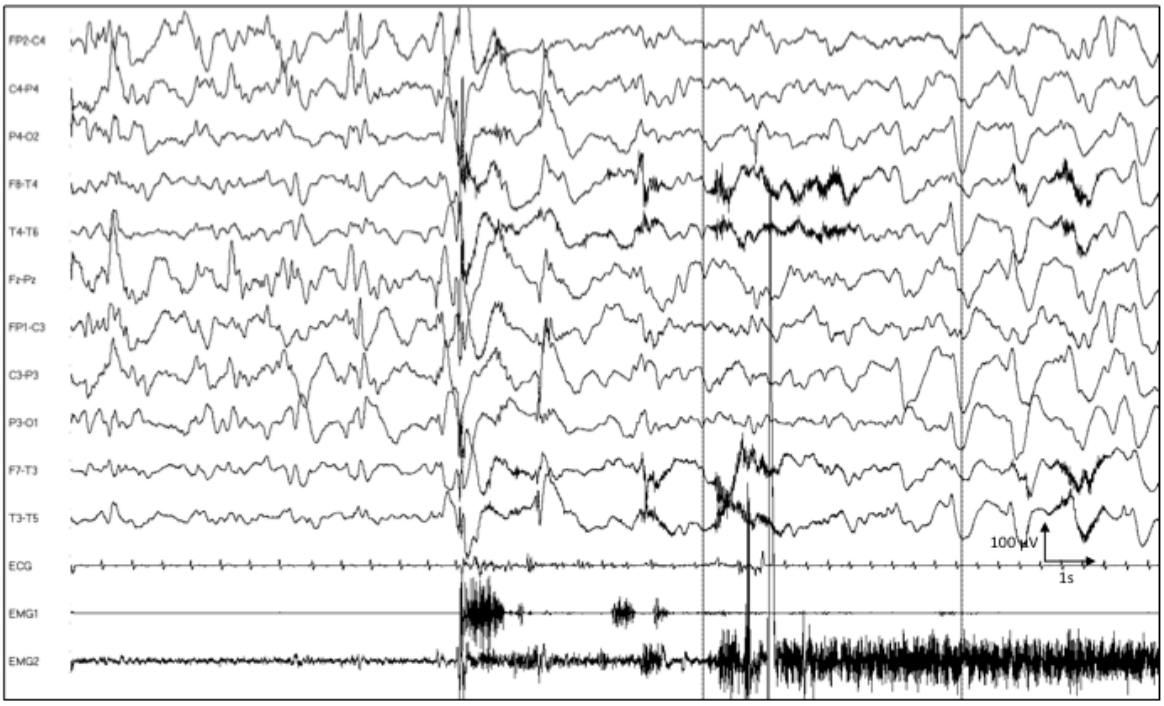

Figure 9. Patient 4 (a 4-year-old boy) demonstrating ictal EEG of an isolated jerk with an unusual feature, consisting of a diamond-shaped aspect to the contraction, immediately preceded by a myoclonic contraction, associated with a bilateral fronto-central spike-wave complex, followed by a diffuse slow wave and brief flattening.

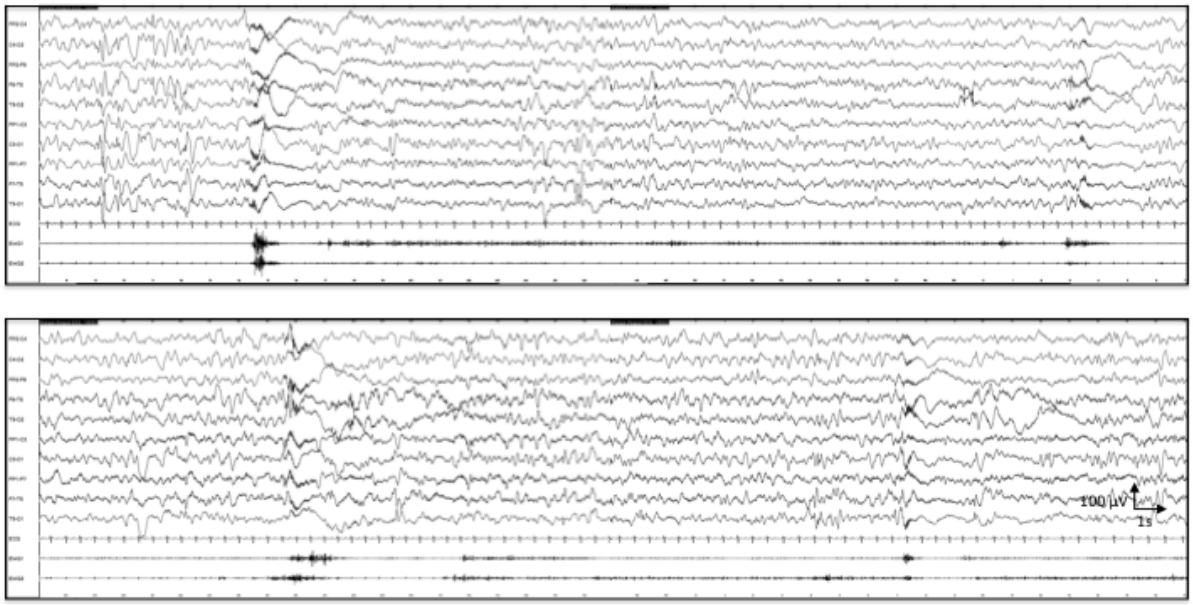

Figure 10. Patient 5 (a 2-year-old girl) with a series of spasms. The clinical manifestations were concomitant on EEG with a burst of diffuse medium-voltage fast rhythms, associated with a slow complex and followed by diffuse flattening.

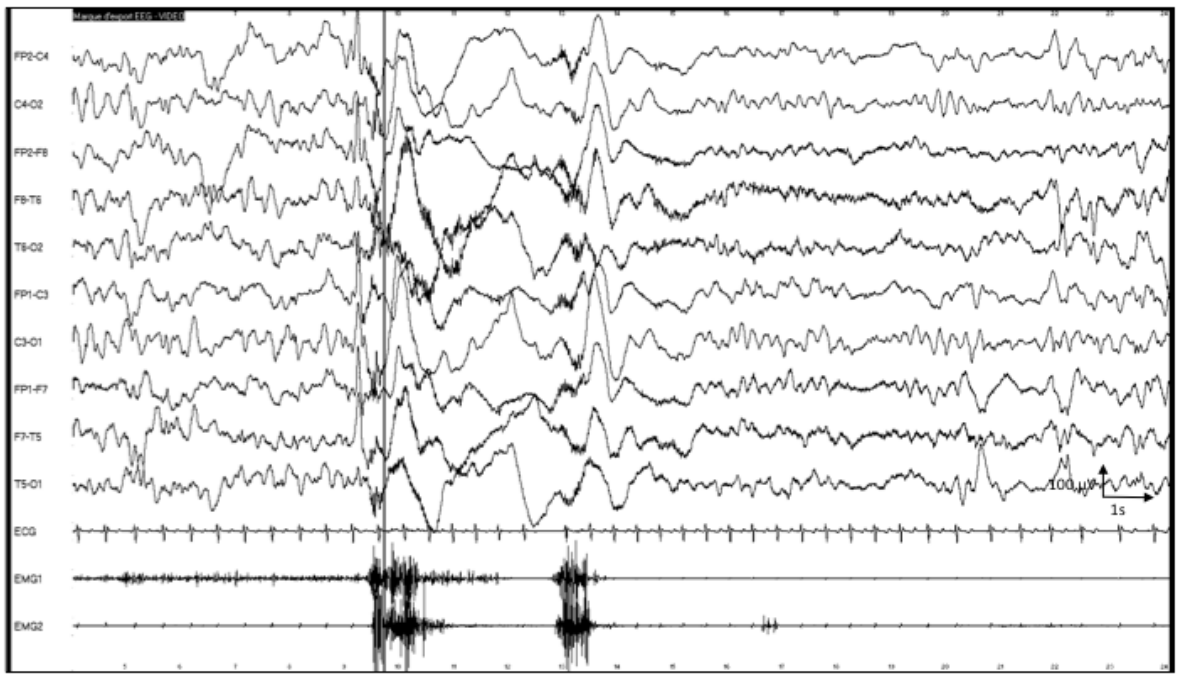

Figure 11. Patient 5 (a 2-year-old girl) with unusual manifestation preceding an epileptic spasm, consisting of a massive jerk in two phases; first a myoclonic phase, followed by spasm associated with bilateral fronto-central spikes, followed by a diffuse slow complex with fast rhythms and a diffuse flattening.