



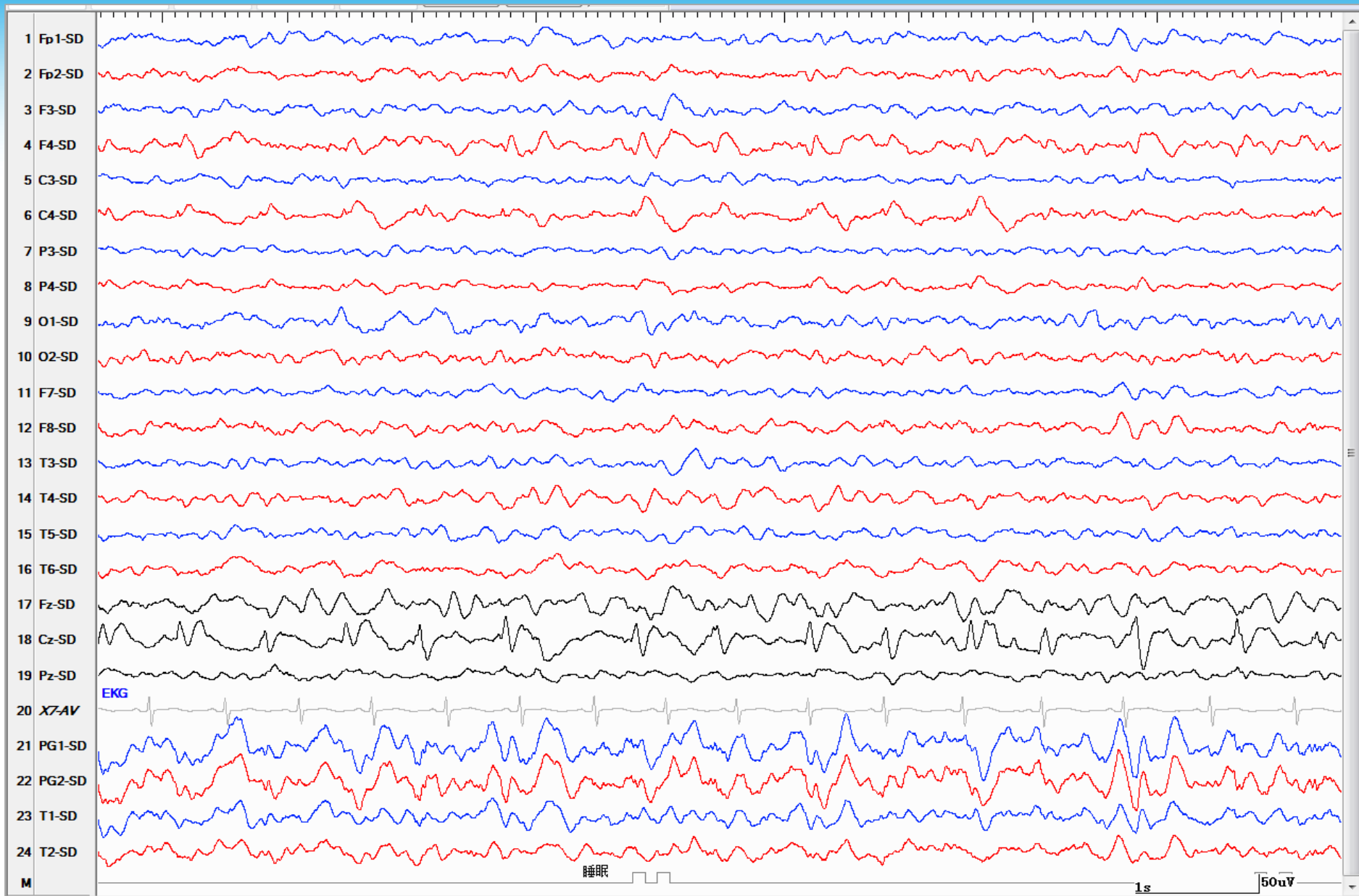
# 病例简介

女，3岁10个月

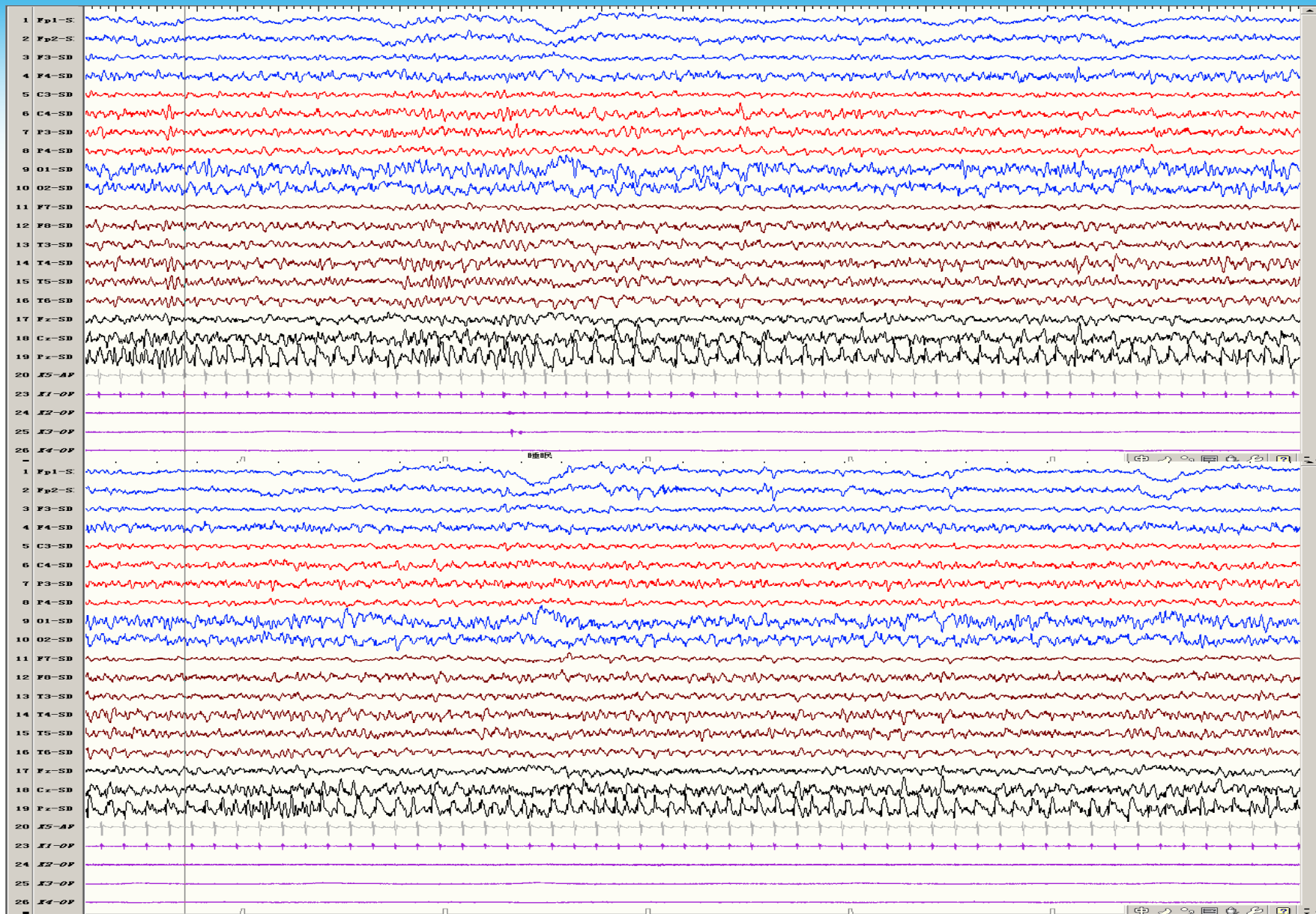
发作性左下肢节律性抖动→僵直，有时波及同侧上肢，偶伴意识障碍，持续数秒至数分钟，最长20分钟，每日数次至十余次，醒睡均发

起病前发育里程碑正常，起病后左下肢运动不灵活，智力轻度落后

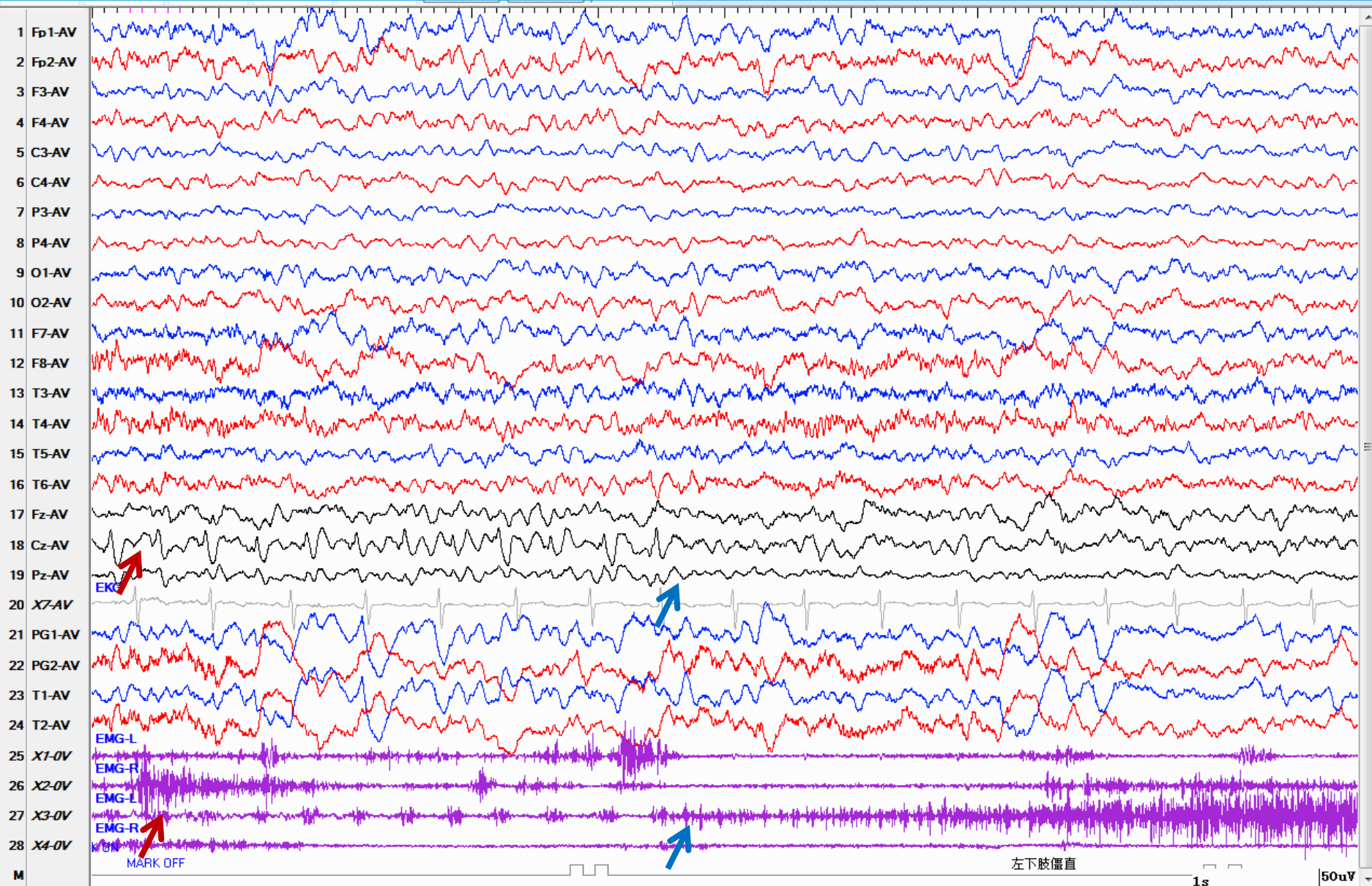
查体：左下肢轻度跛行，左侧踝阵挛(+/-)



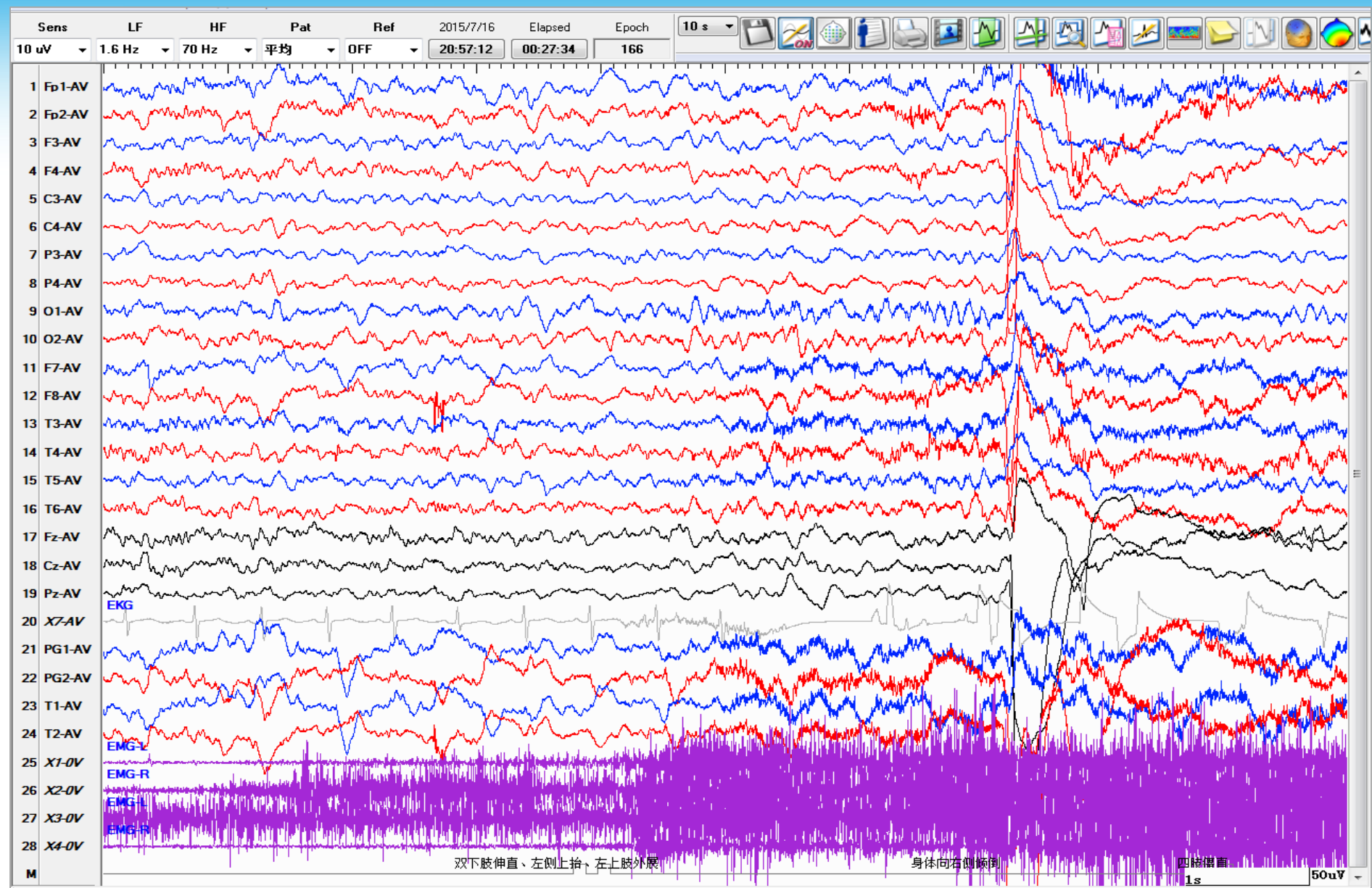
发作间期：Cz 持续周期性棘波，波及F4和C4



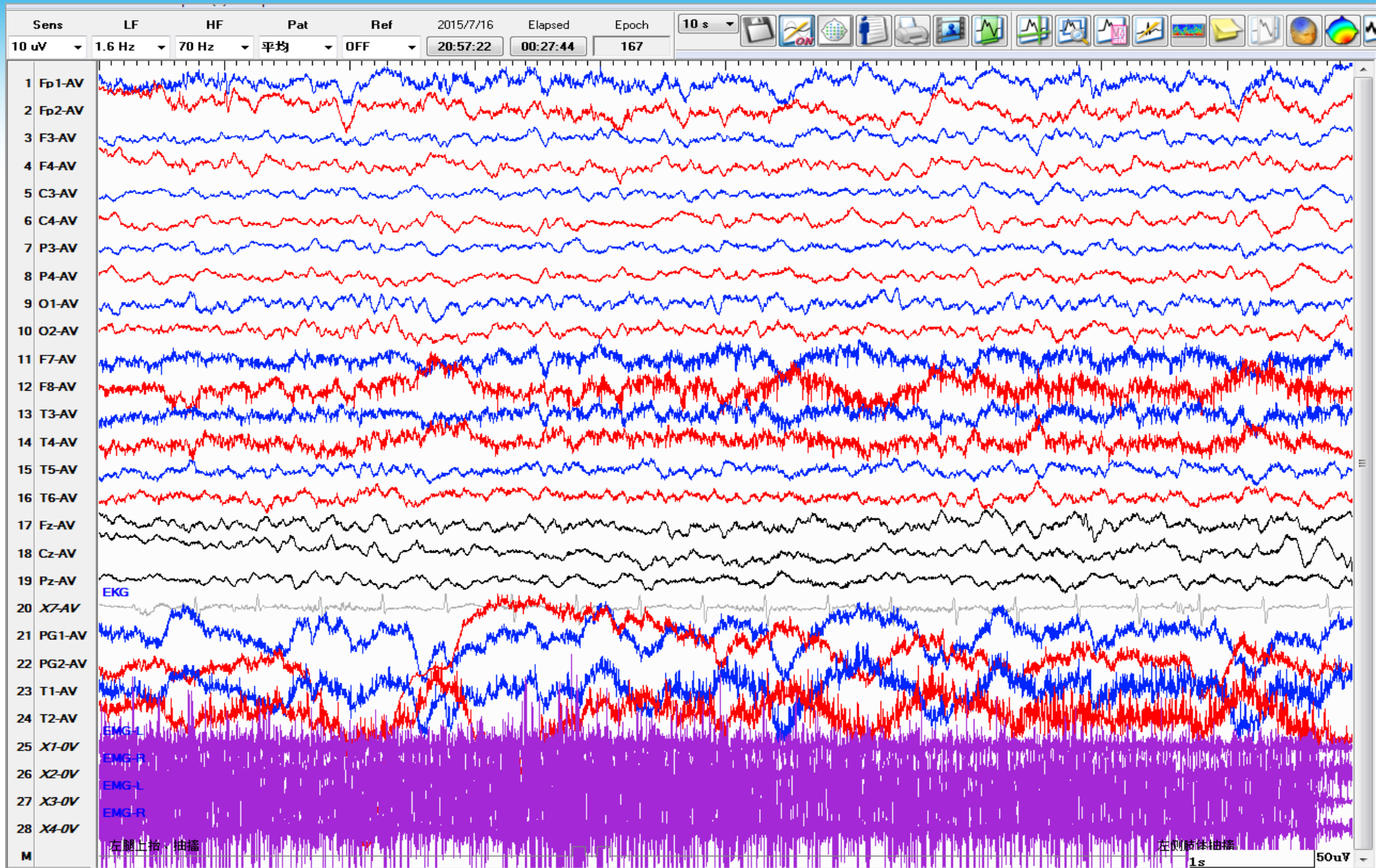
**Cz和Pz间期长程电发作，临床无症状**



发作起始于Cz伴EMG左下肢阵挛（红箭头）→ Cz棘波消失且Pz电压降低伴左下肢强直（蓝箭头）  
（EMG依次为左右三角肌和胫前肌）



(接上图) 四肢不对称强直



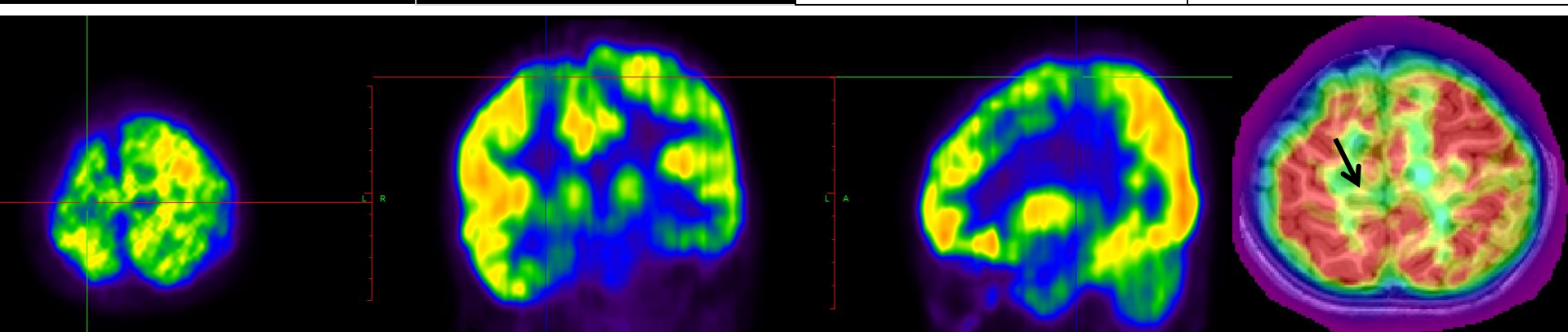
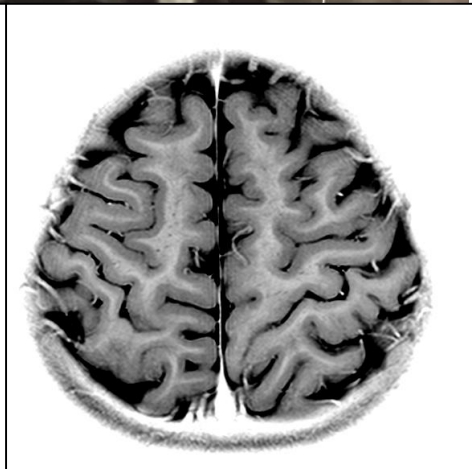
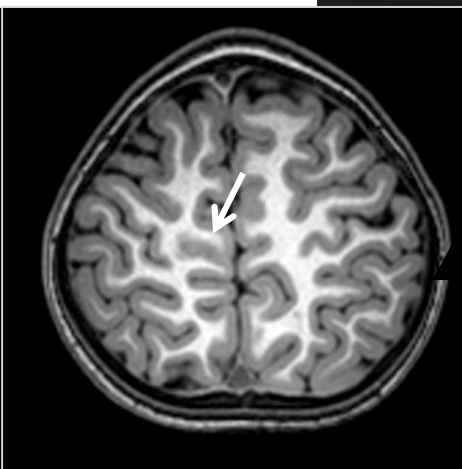
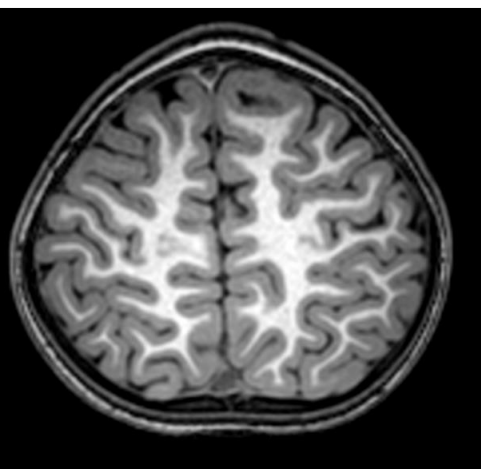
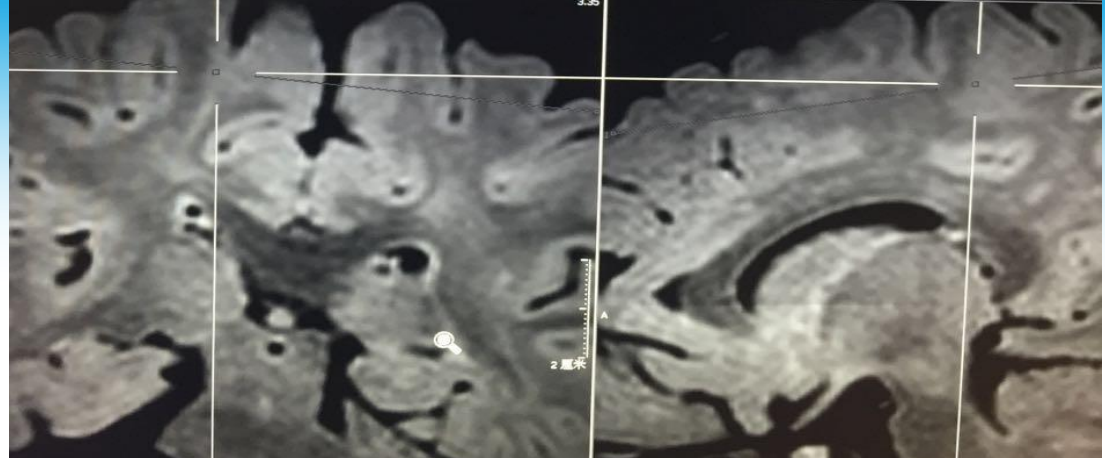
(接上图) 四肢强直

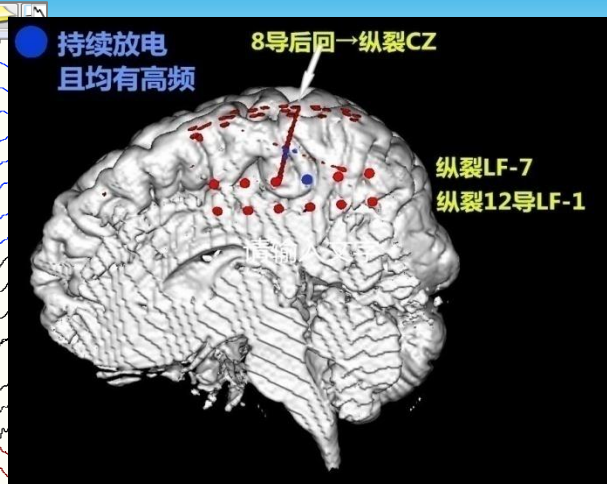
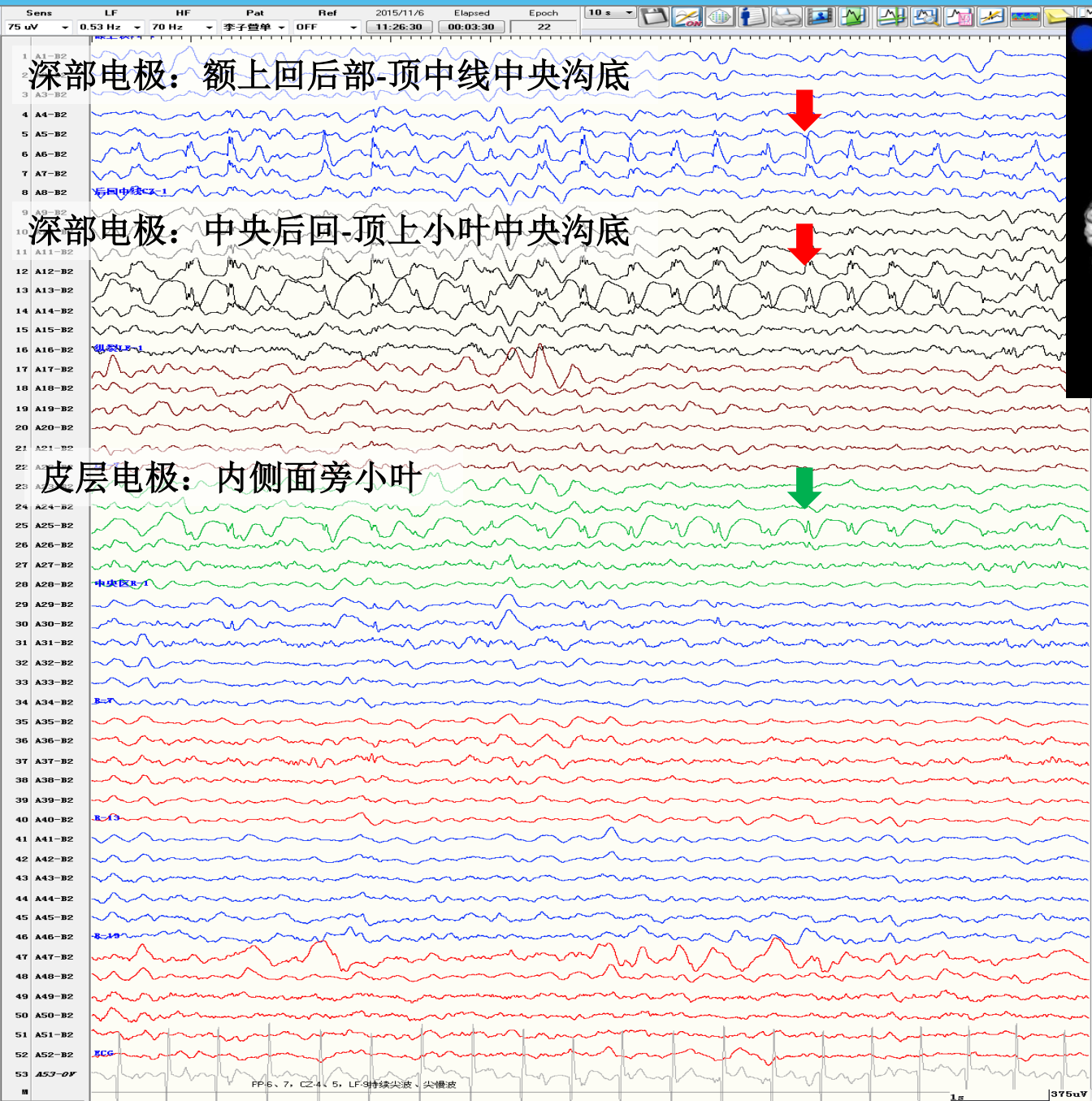
MRI: 右侧旁中央小叶

脑沟底部异常信号

伴Transmantle 征

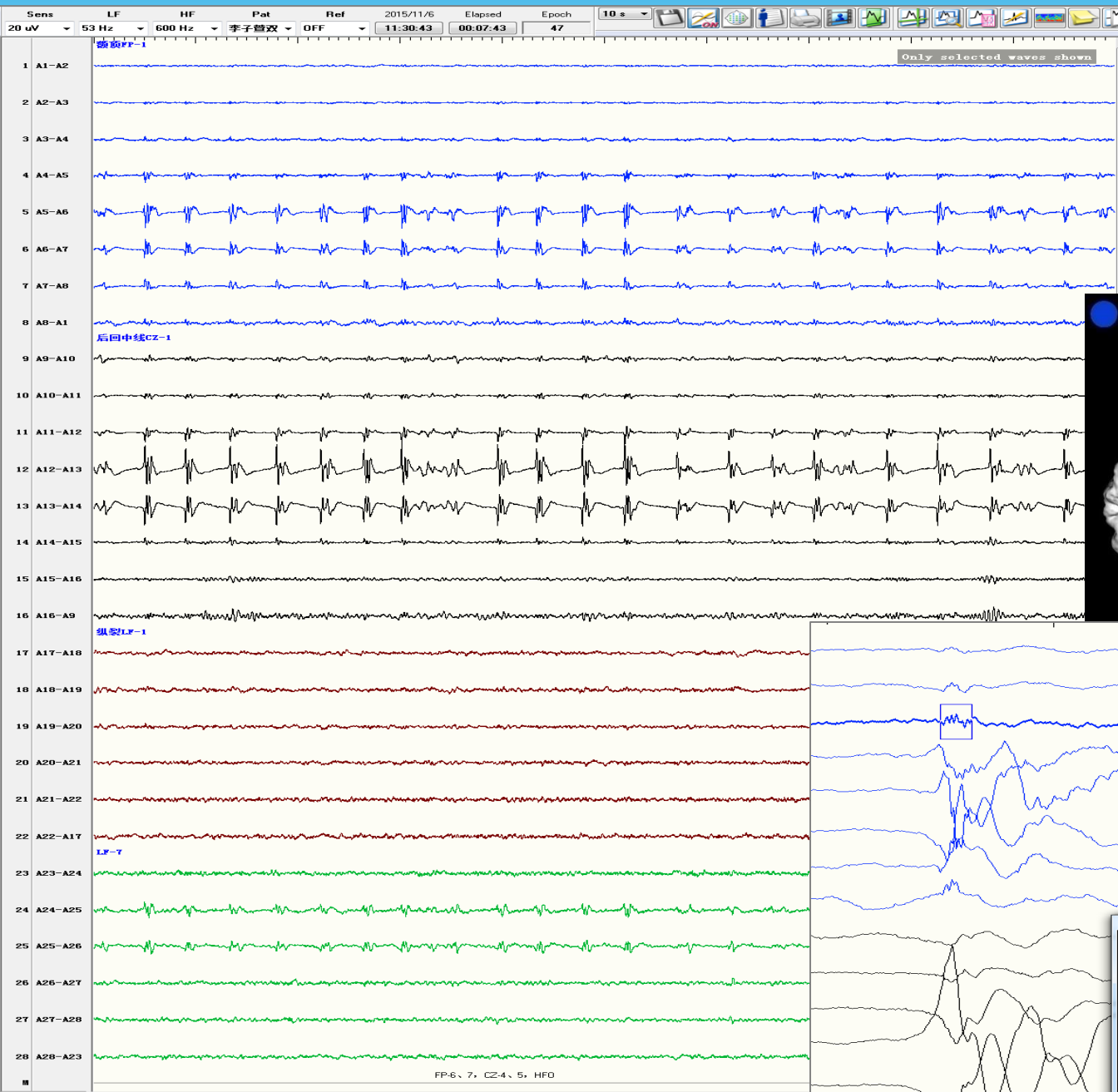
PET-MRI融合: 局部低代谢



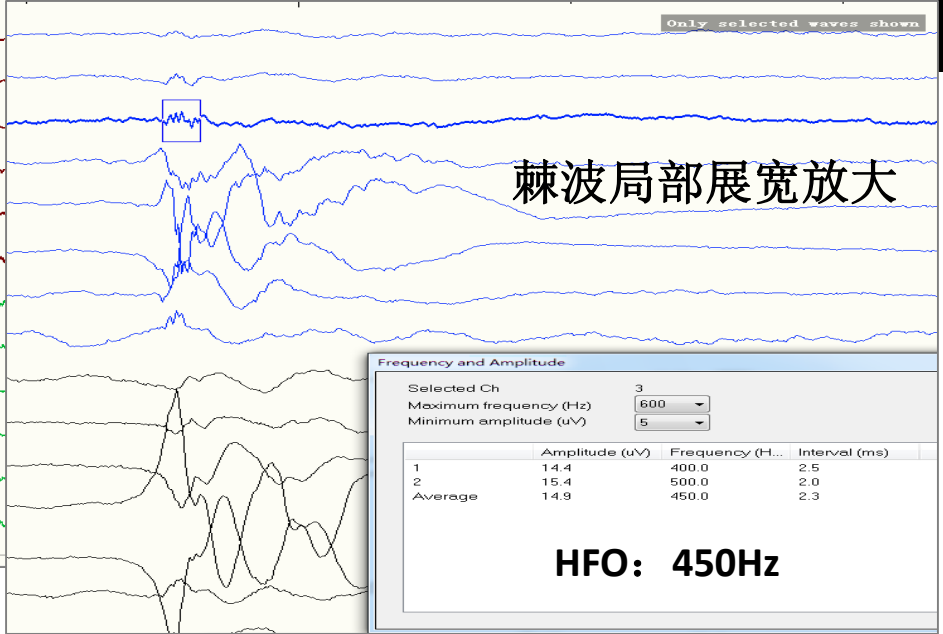
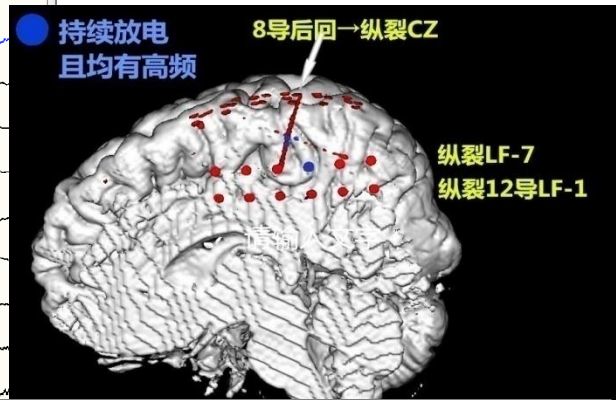


- 深部电极病变脑沟底部发作间期持续放电（红色箭头）
- 内侧面皮层表面电极间断放电（绿色箭头）



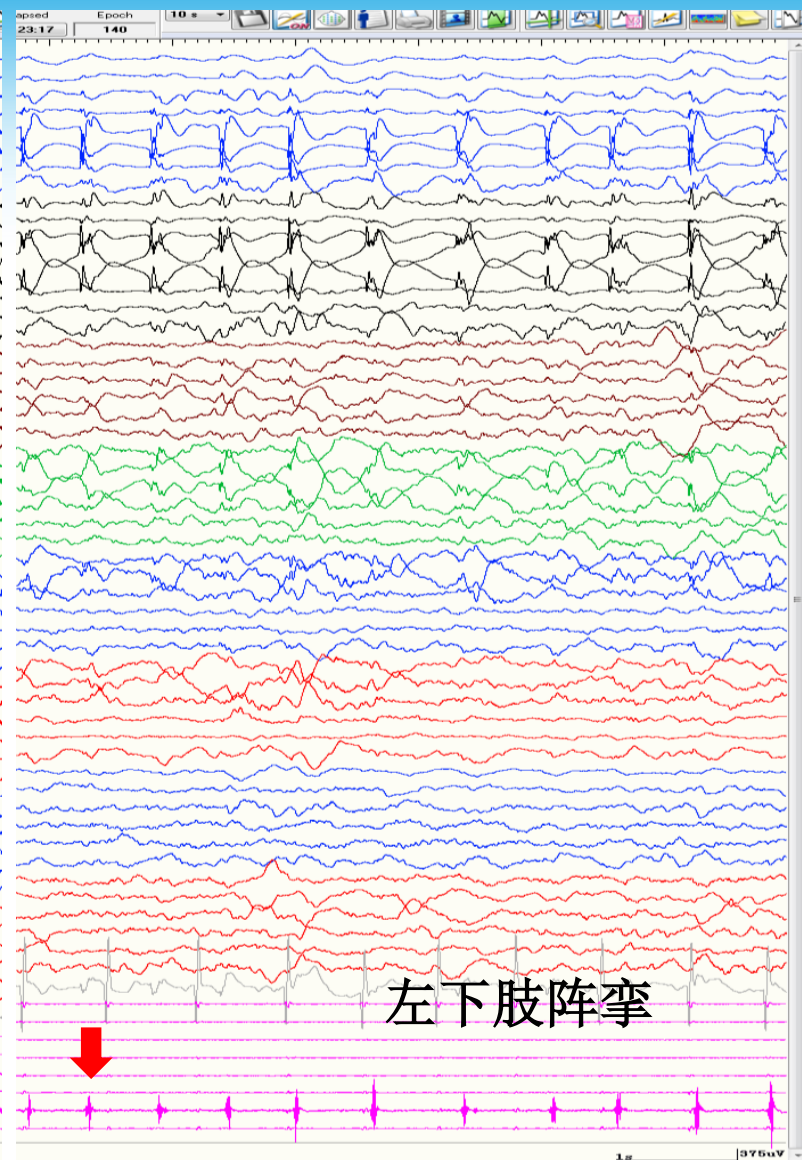
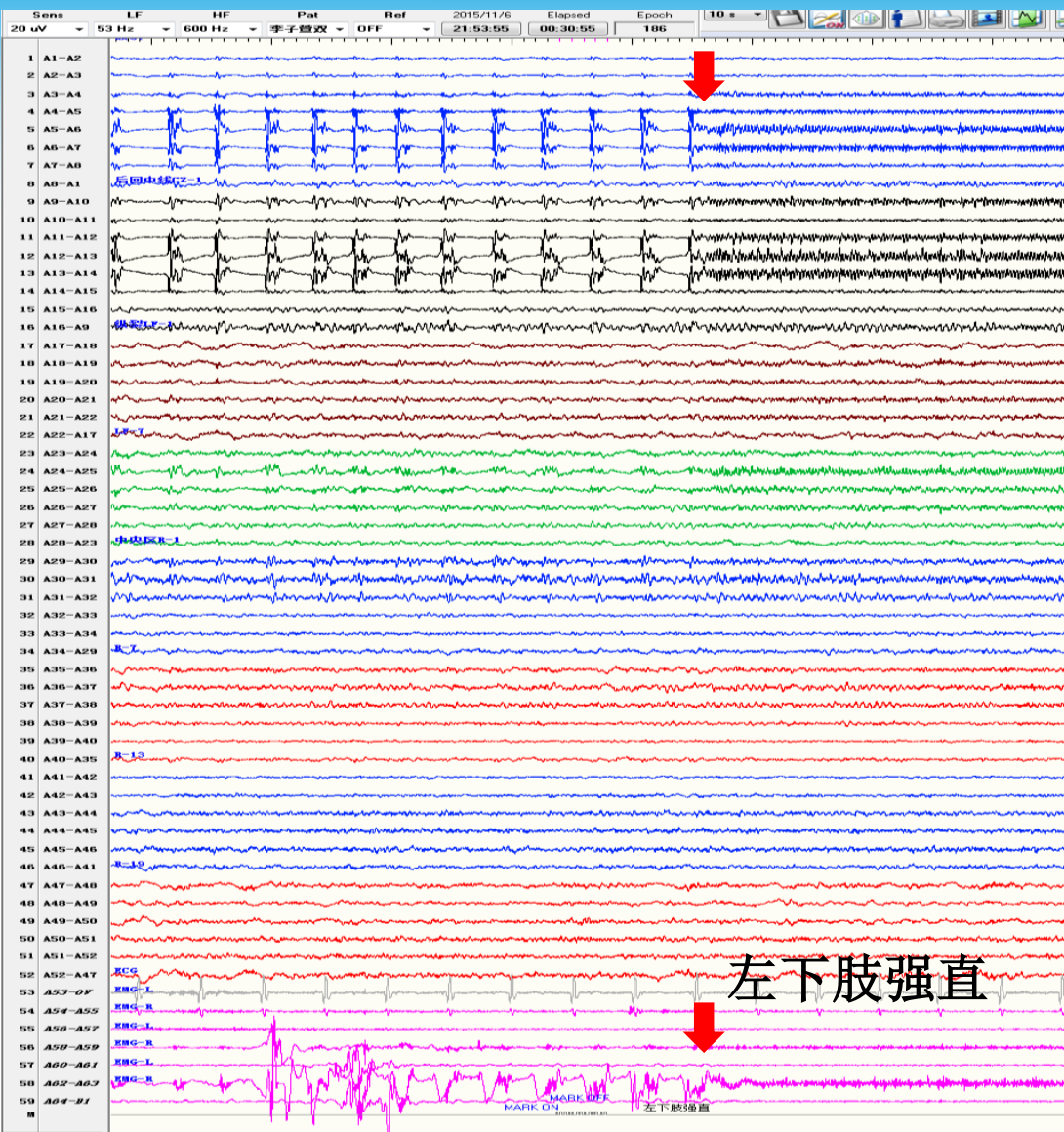


发作间期  
棘波复合高频振荡  
(带宽53-600Hz)



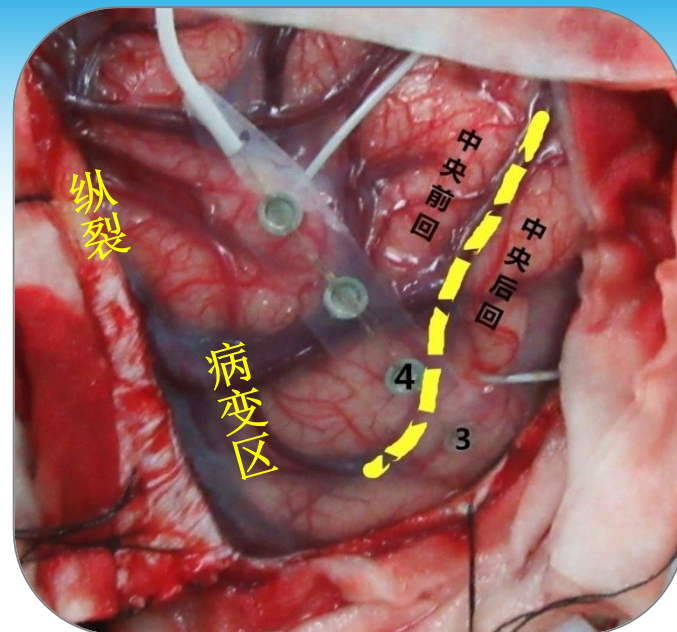
Frequency and Amplitude			
Selected Ch	3		
Maximum frequency (Hz)	600		
Minimum amplitude (uV)	5		
	Amplitude (uV)	Frequency (Hz)	Interval (ms)
1	14.4	400.0	2.5
2	15.4	500.0	2.0
Average	14.9	450.0	2.3

**HFO: 450Hz**

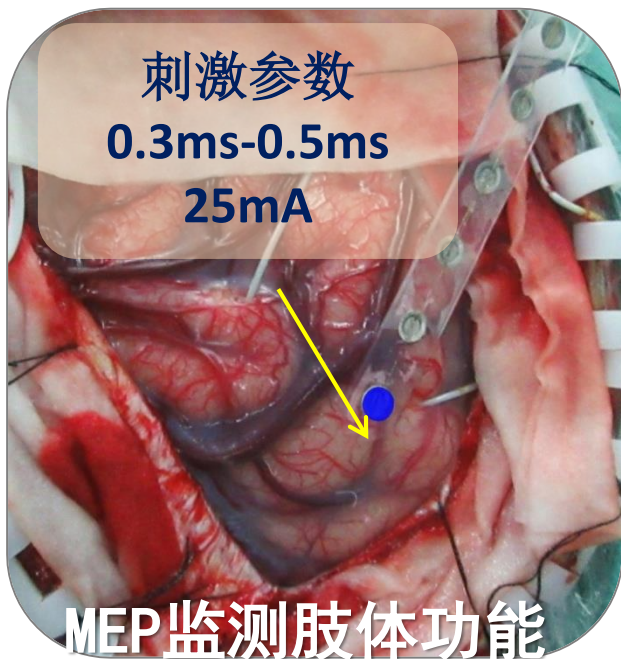


发作期放电起源于深部电极记的病变沟底

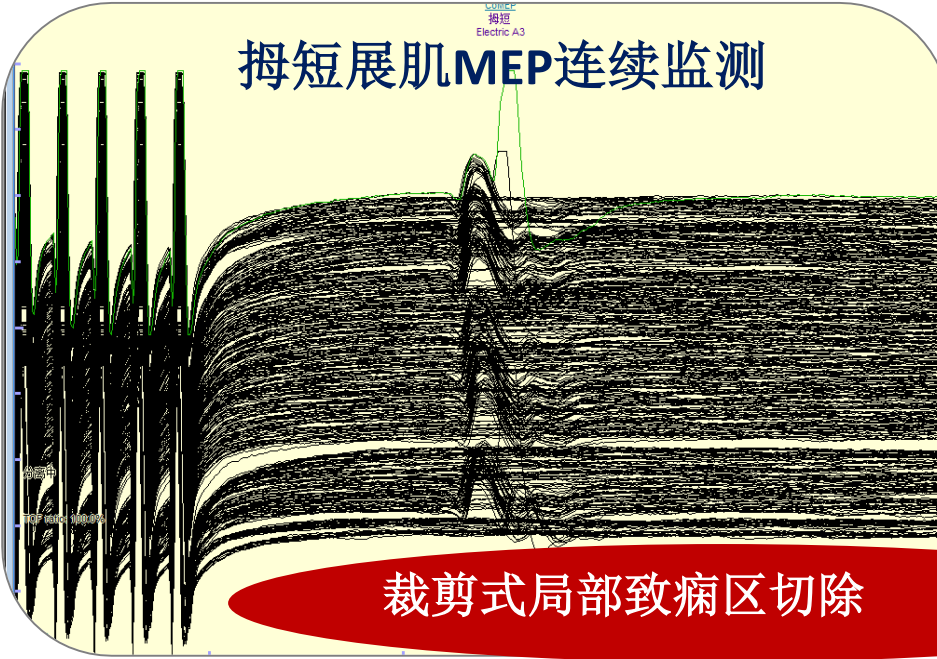
术中持续  
神经功能监测  
切除致痫区  
并保护肢体运动功能



刺激参数  
0.3ms-0.5ms  
25mA



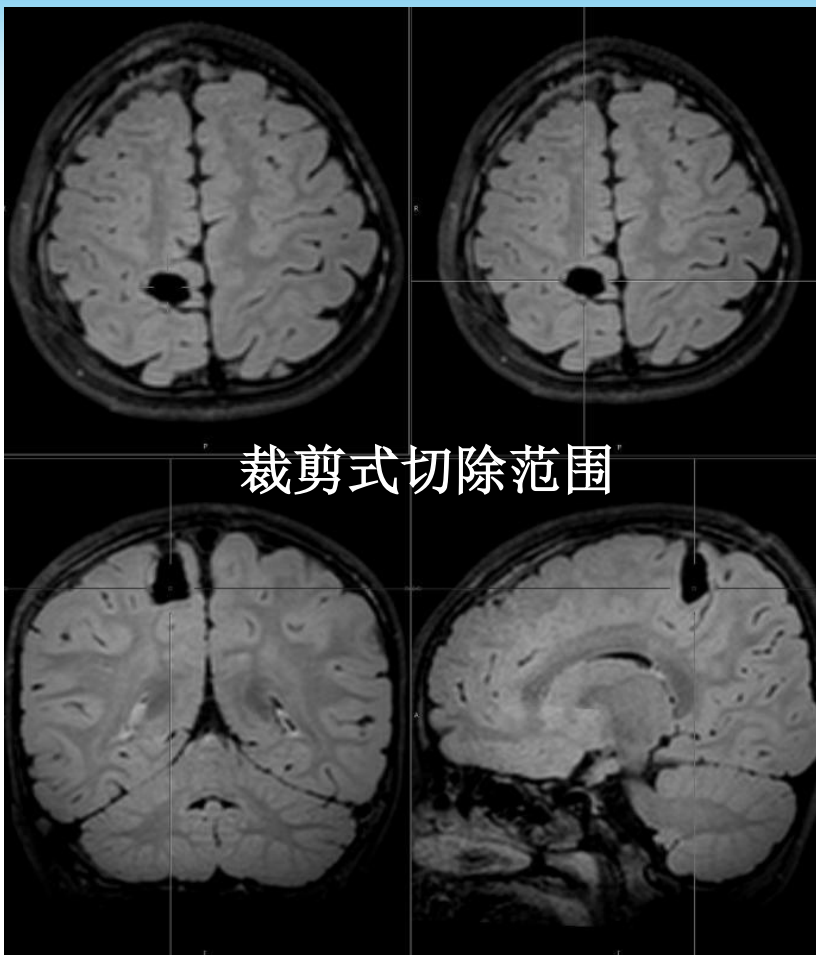
拇短展肌MEP连续监测



裁剪式局部致痫区切除

## 小结

- 发作症状学和EEG可提示症状产生部位
- 局部节律性癫痫样放电（rhythmic epileptiform discharges, RED）高度提示FCD
- FCD常位于脑沟底部，需要深部电极或SEEG精确定位
- 术中SEP-MEP持续监测是保护运动功能的有效方法



裁剪式切除范围

- 术后次日左足可活动
- 出院时肌力恢复正常
- 术后至今一年无发作
- 病理：FCD IIb