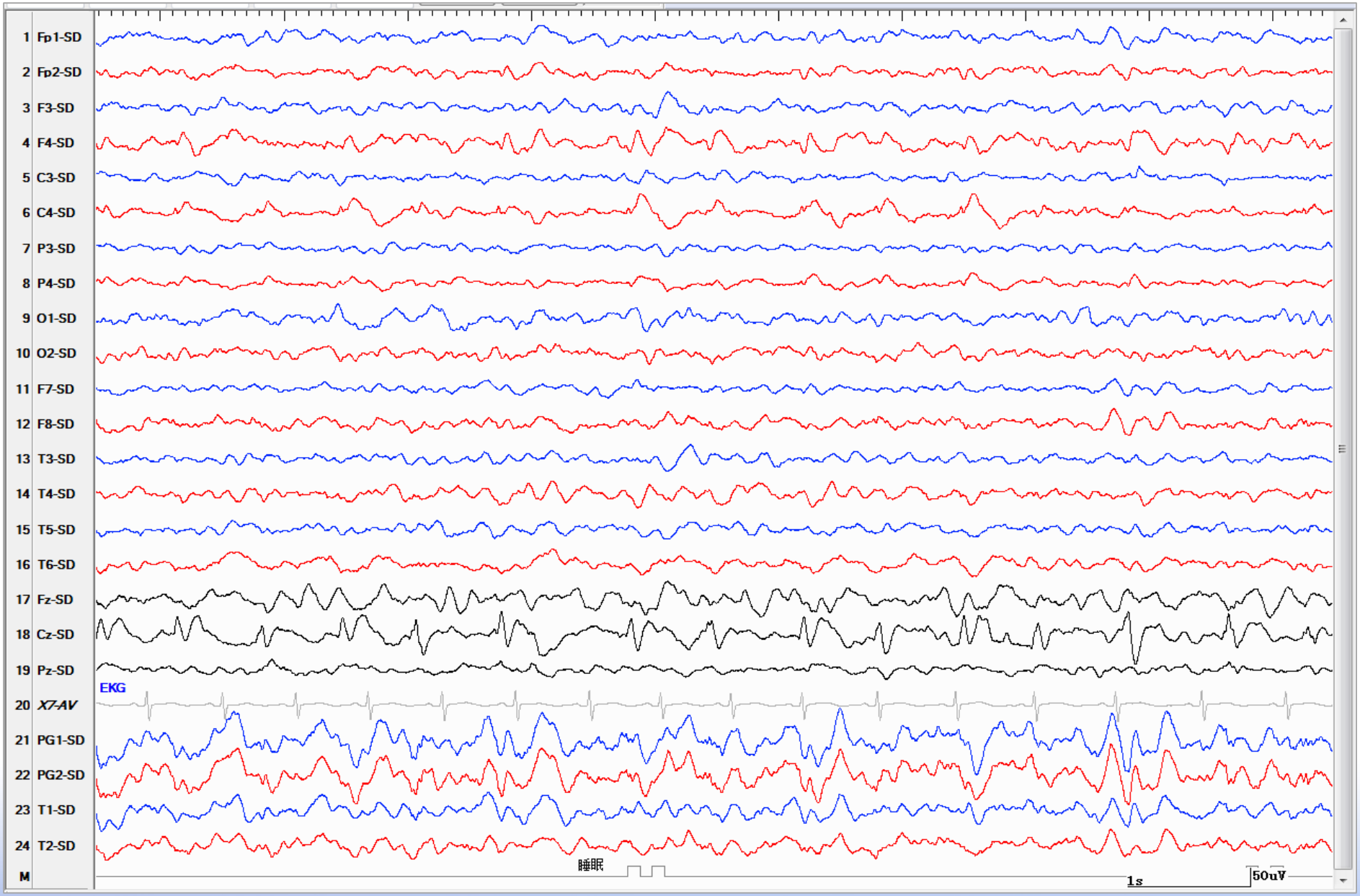
病例简介

女，3岁10个月

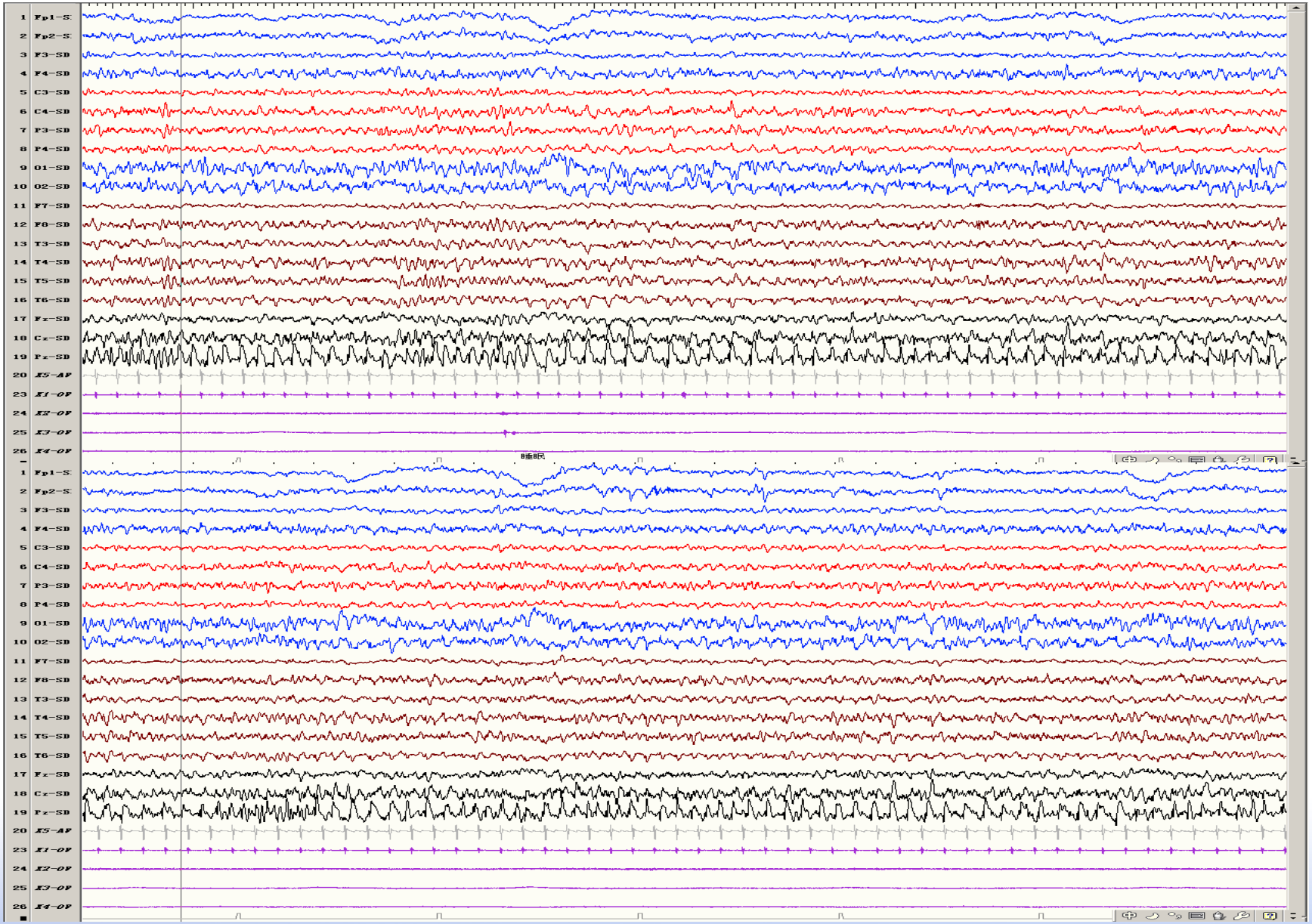
发作性左下肢节律性抖动→僵直，有时波及同侧上肢，偶伴意识障碍，持续数秒至数分钟，最长20分钟，每日数次至十余次，醒睡均发

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

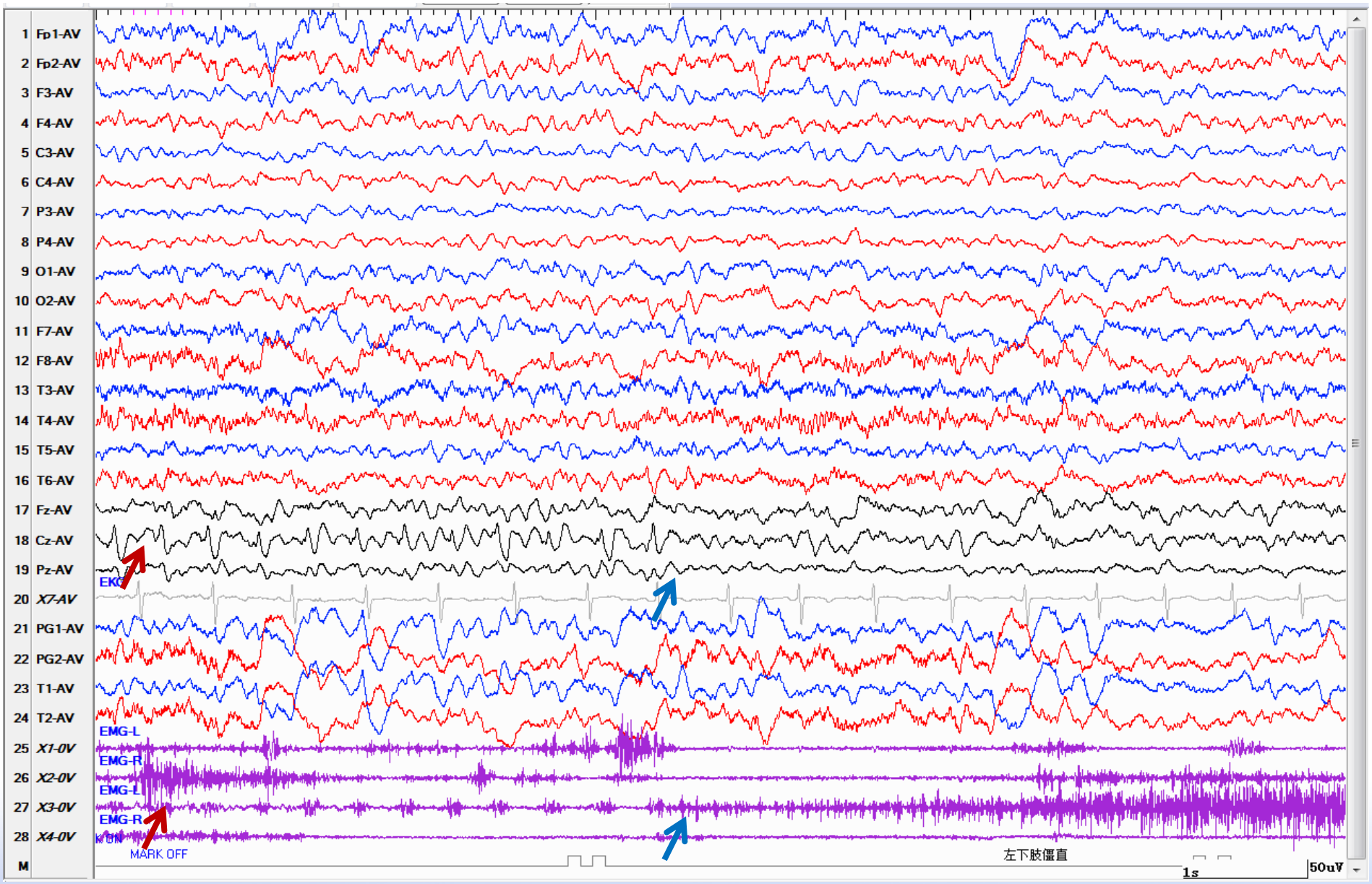
查体：左下肢轻度跛行，左侧踝阵挛（+/-）



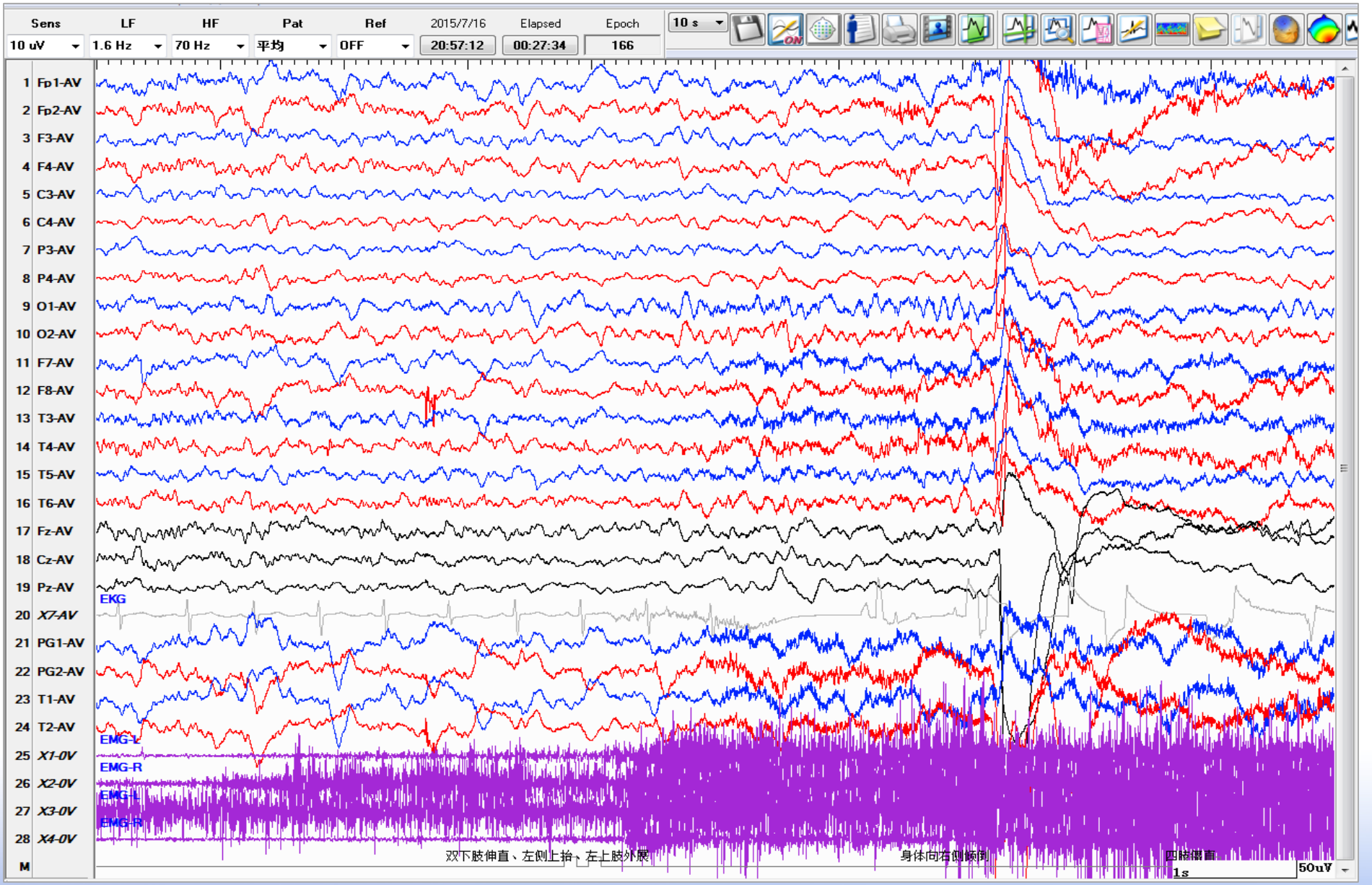
发作间期：Cz 持续周期性棘波，波及F4和C4



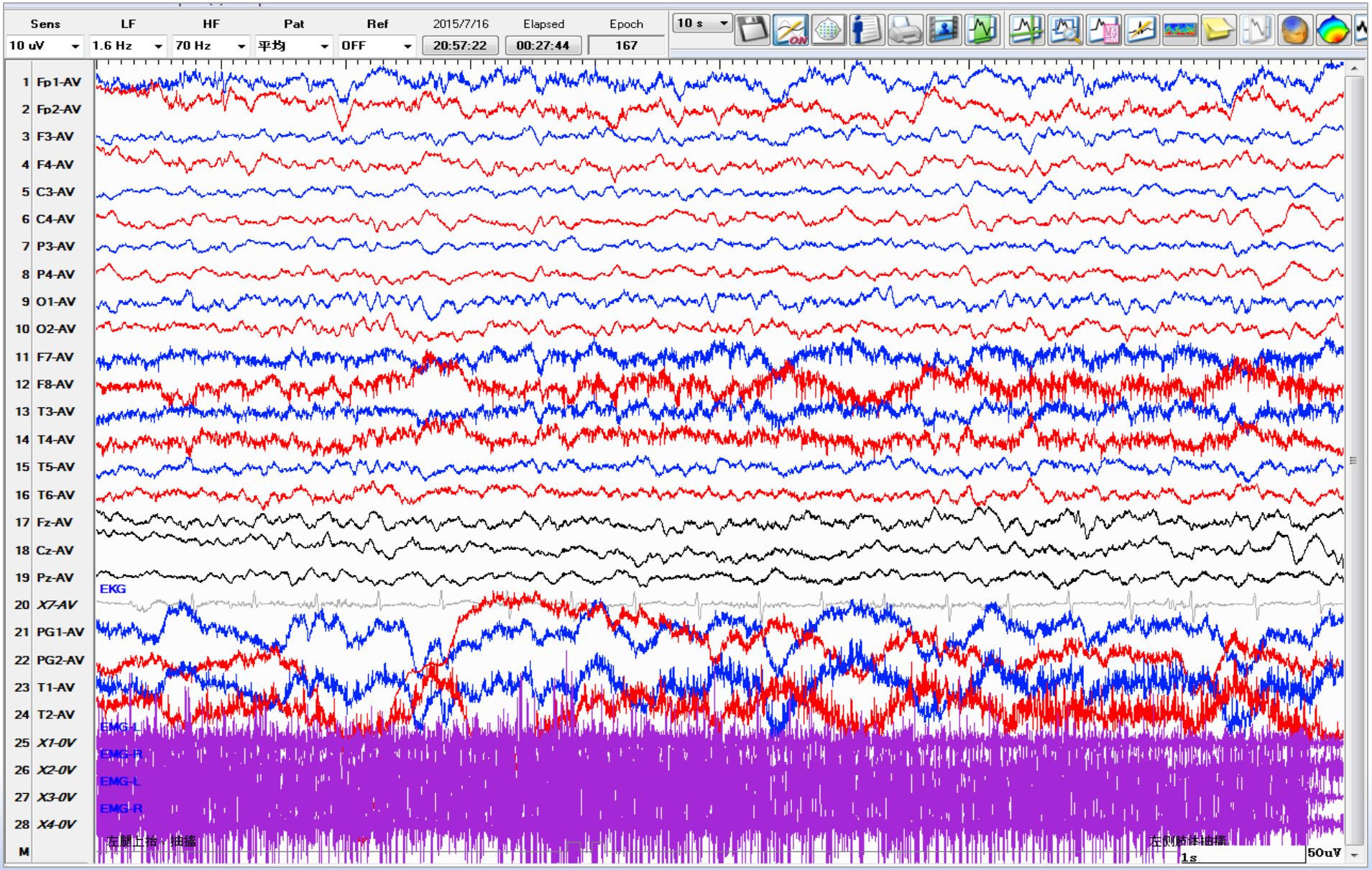
Cz和Pz间期长程电发作，临床无症状



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）


Sens
LF
HF
Pat
Ref
2015/7/16
Elapsed
Epoch
10 uV
1.6 Hz
70 Hz
平均
OFF
20:57:12
00:27:34
166
10 s
1 Fp1-AV
2 Fp2-AV
3 F3-AV
4 F4-AV
5 C3-AV
6 C4-AV
7 P3-AV
8 P4-AV
9 O1-AV
10 O2-AV
11 F7-AV
12 F8-AV
13 T3-AV
14 T4-AV
15 T5-AV
16 T6-AV
17 Fz-AV
18 Cz-AV
19 Pz-AV
EKG
20 X7-AV
21 PG1-AV
22 PG2-AV
23 T1-AV
24 T2-AV
EMG-L
25 X1-0V
EMG-R
26 X2-0V
EMG-L
27 X3-0V
EMG-R
28 X4-0V
M
双下肢伸直、左侧上抬、左上肢外展
身体向右侧倾倒
四肢描画
1s
50uV

（接上图）四肢不对称强直


Sens
LF
HF
Pat
Ref
2015/7/16
Elapsed
Epoch
10 uV
1.6 Hz
70 Hz
平均
OFF
20:57:22
00:27:44
167
10 s
1 Fp1-AV
2 Fp2-AV
3 F3-AV
4 F4-AV
5 C3-AV
6 C4-AV
7 P3-AV
8 P4-AV
9 O1-AV
10 O2-AV
11 F7-AV
12 F8-AV
13 T3-AV
14 T4-AV
15 T5-AV
16 T6-AV
17 Fz-AV
18 Cz-AV
19 Pz-AV
EKG
20 X7-AV
21 PG1-AV
22 PG2-AV
23 T1-AV
24 T2-AV
EMG-L
25 X1-0V
EMG-R
26 X2-0V
EMG-L
27 X3-0V
EMG-R
28 X4-0V
M
左腿上抬，抽搐
左侧肢体抽搐
1s
50uV

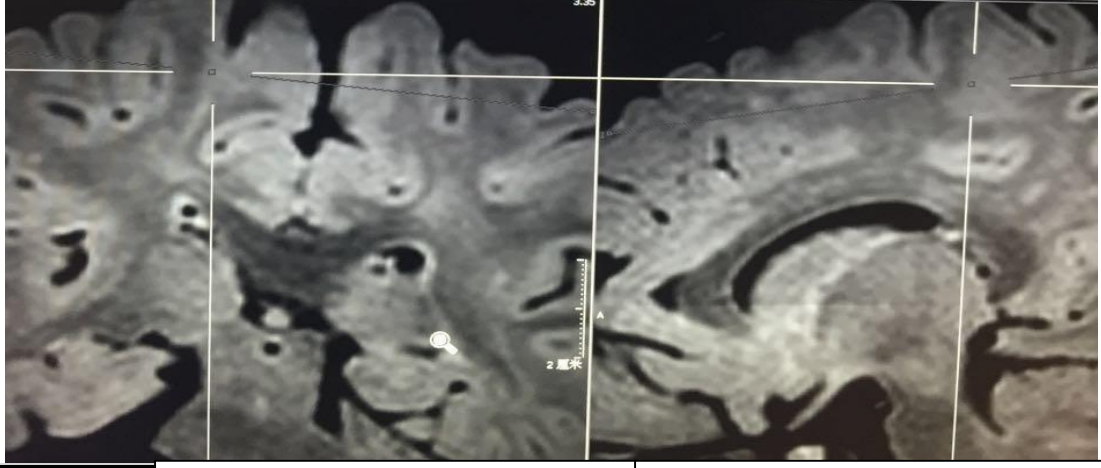
（接上图）四肢强直

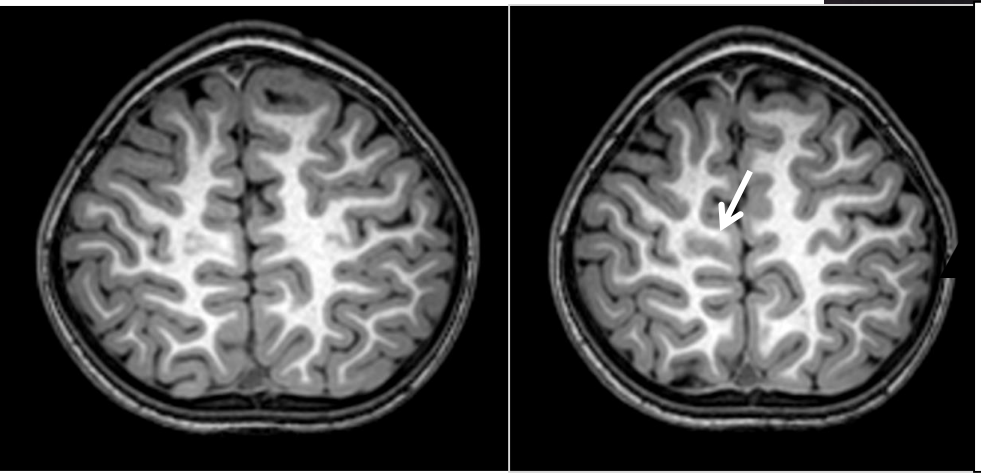
MRI: 右侧旁中央小叶

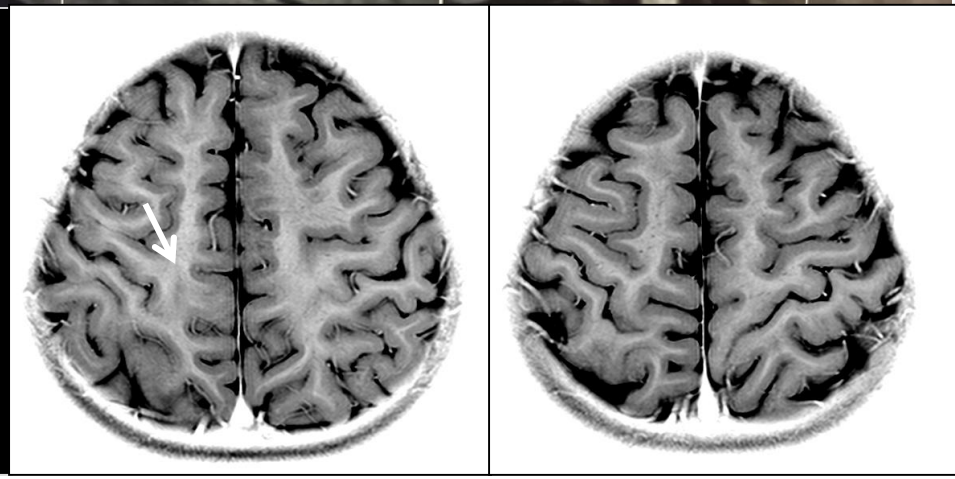
脑沟底部异常信号

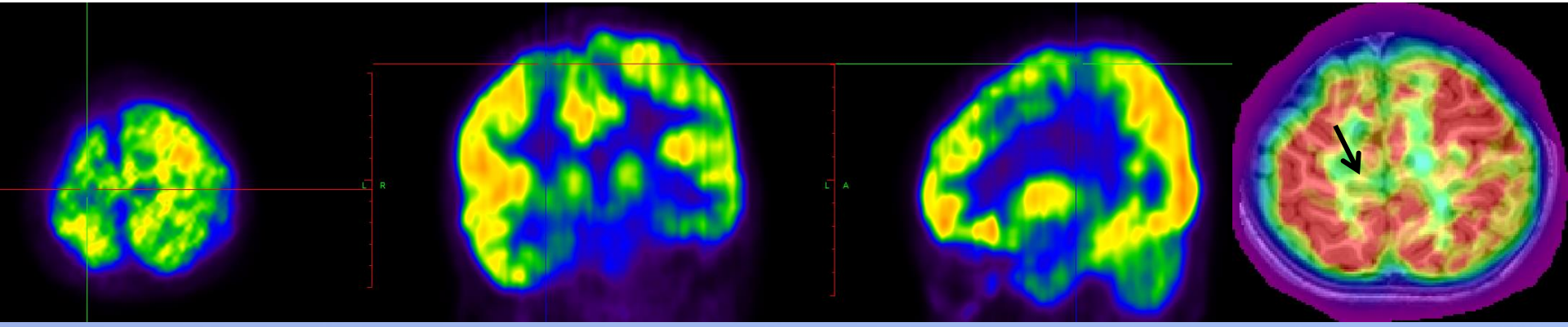
伴Transmantle 征

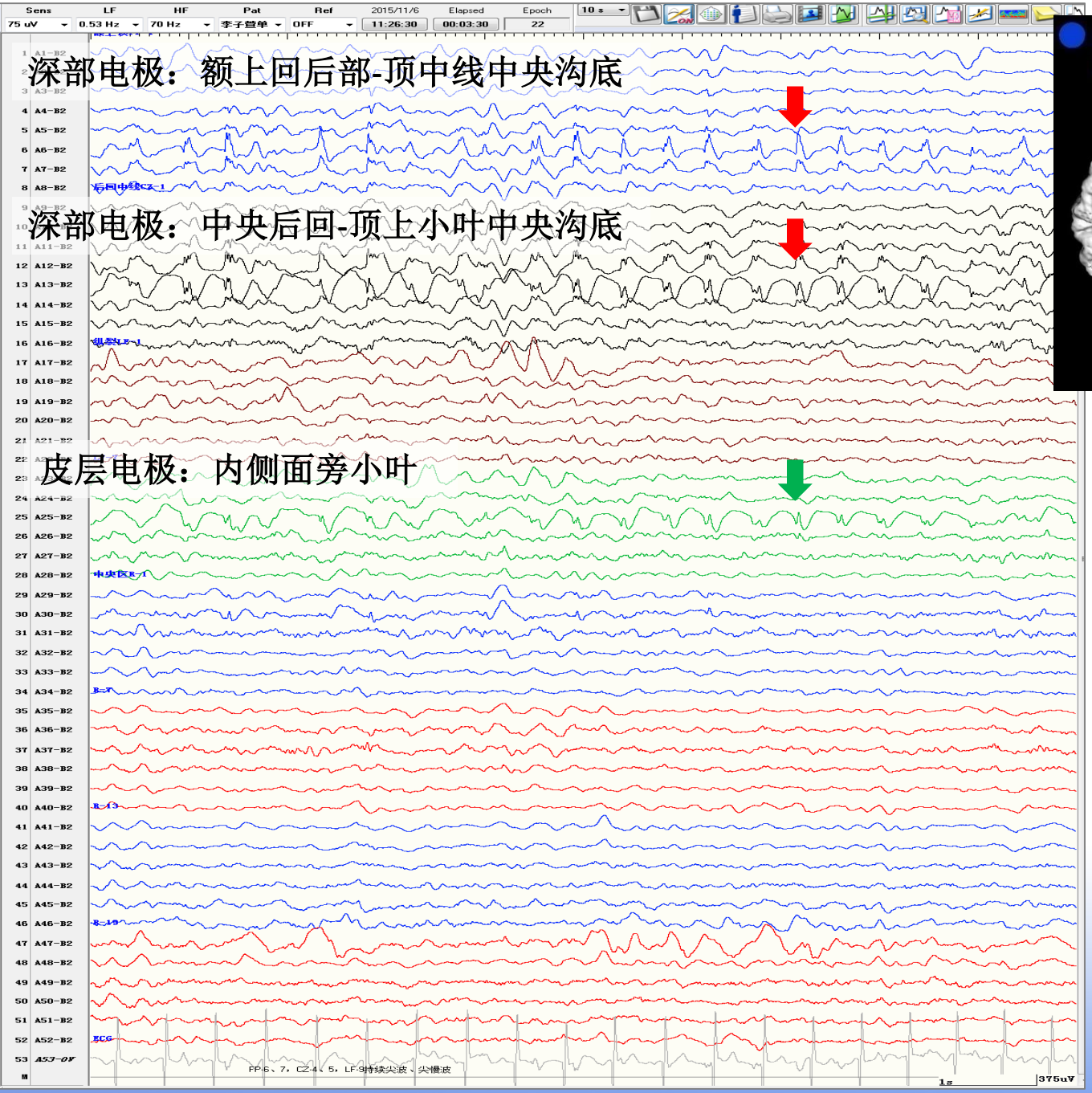
PET-MRI融合：**局部低代谢**

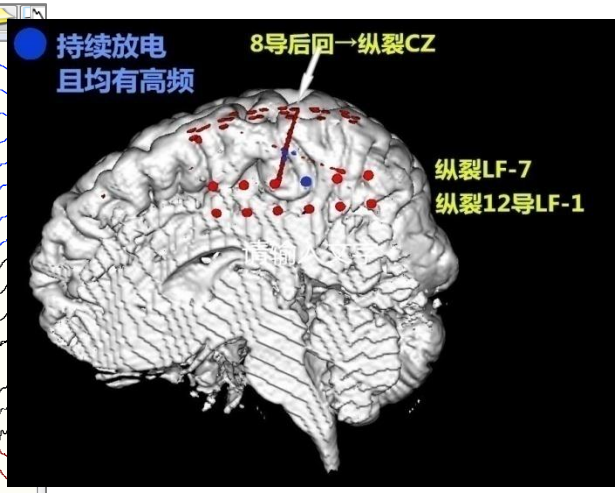






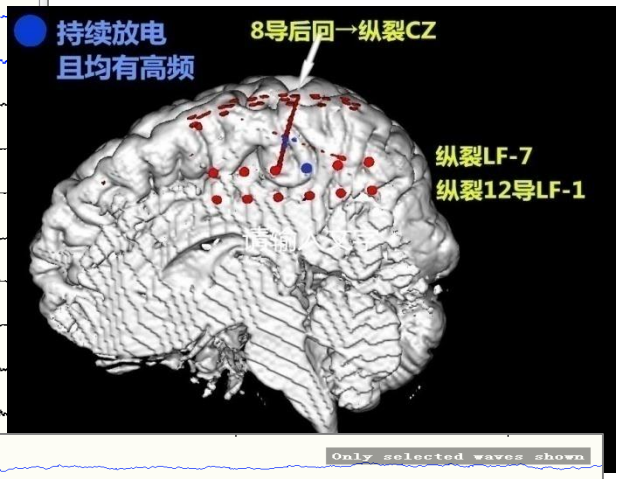






- 深部电极病变脑沟底部发作间期持续放电（红色箭头）
- 内侧面皮层表面电极间断放电（绿色箭头）

发作间期
棘波复合高频振荡
（带宽53-600Hz）

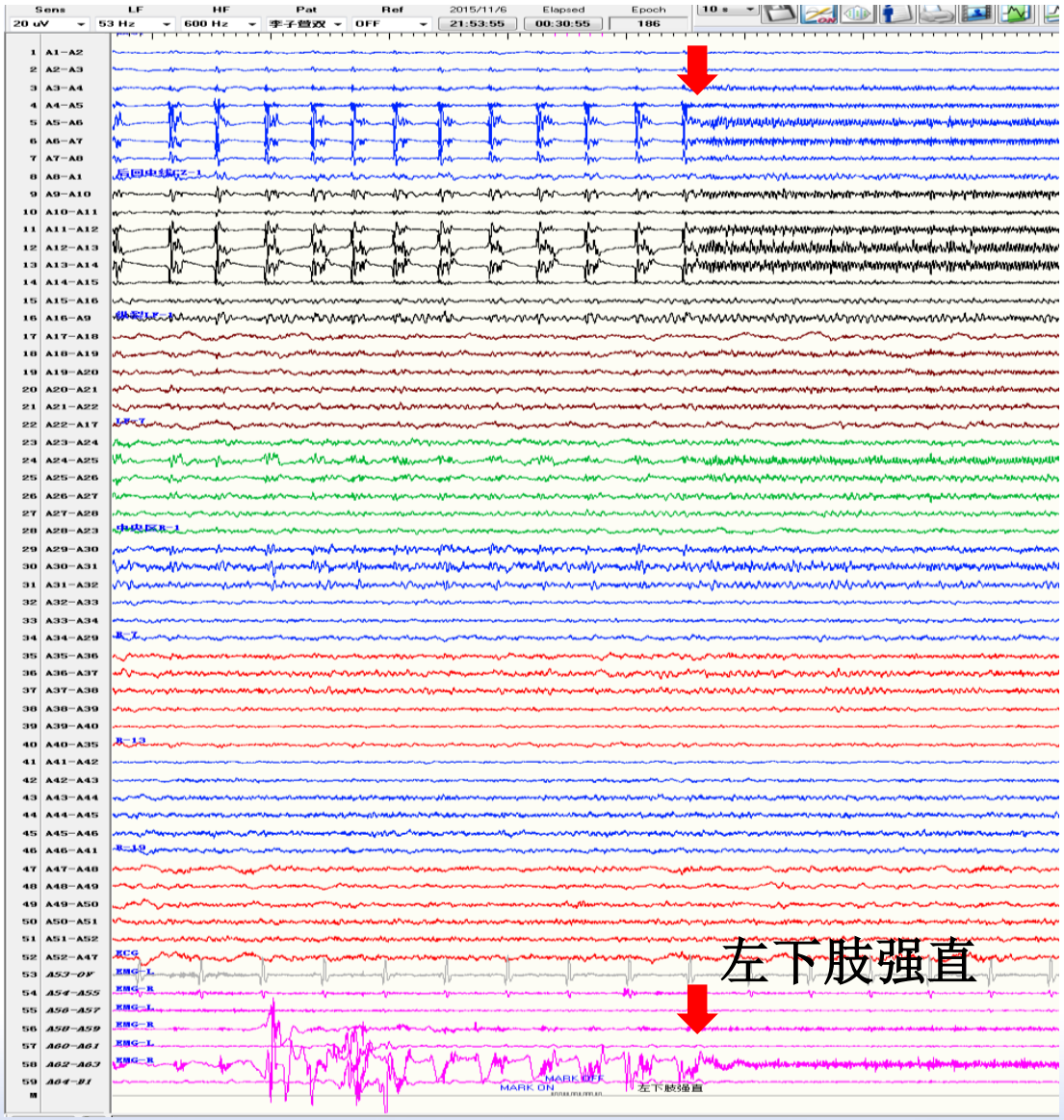


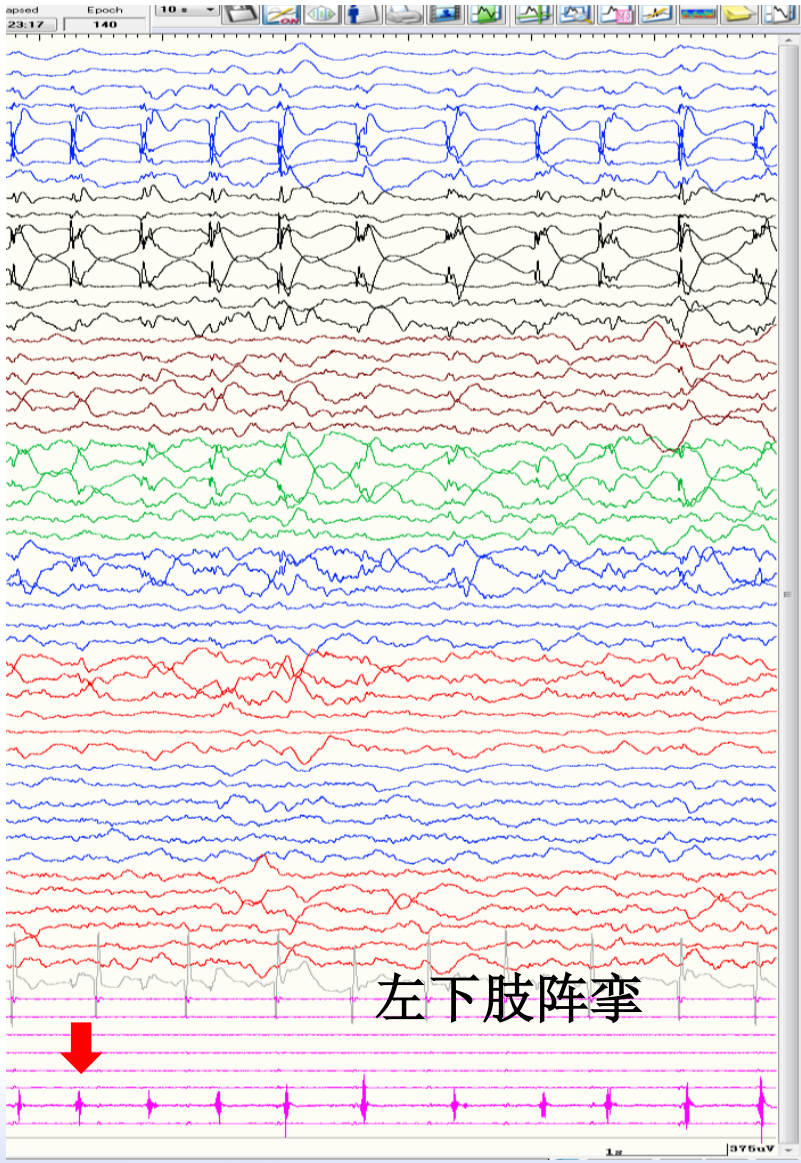
棘波局部展宽放大

Frequency and Amplitude

	Amplitude (uV)	Frequency (H...	Interval (ms)
1	14.4	400.0	2.5
2	15.4	500.0	2.0
Average	14.9	450.0	2.3

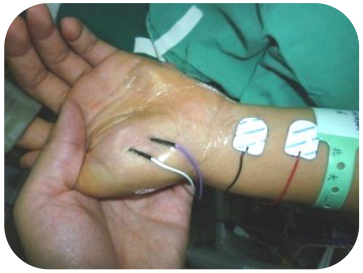
HFO：450Hz

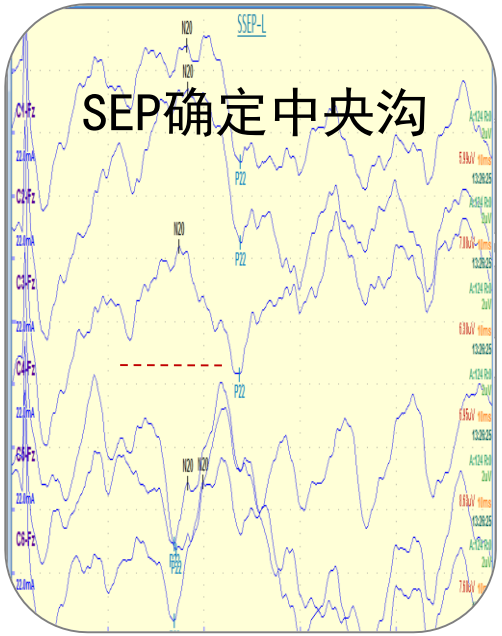


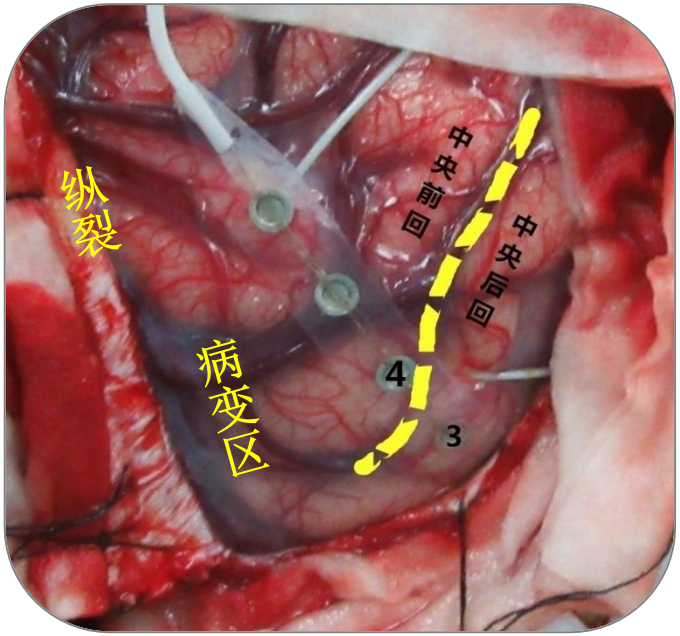


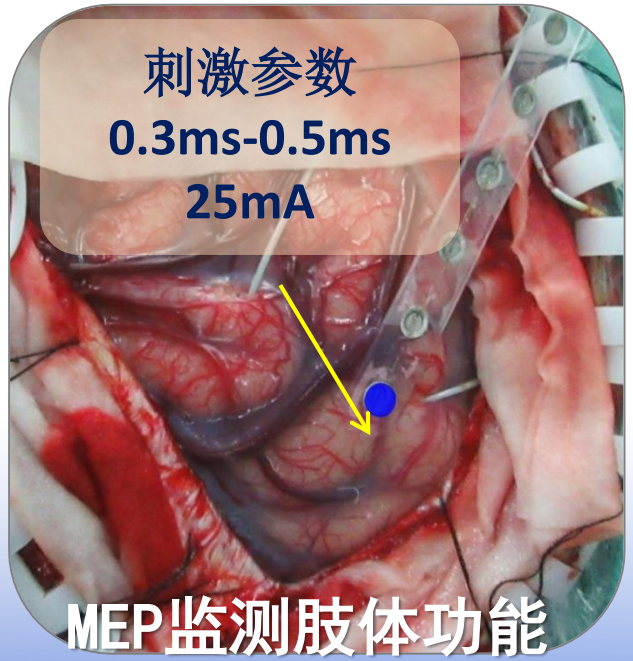
发作期放电起源于深部电极记的病变沟底

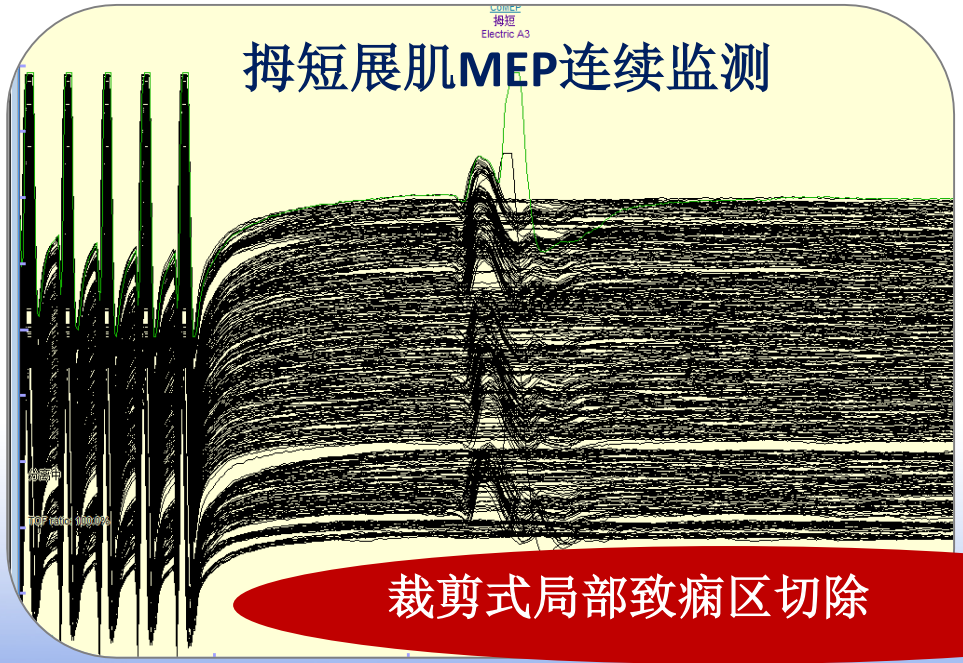
术中持续
神经功能监测
切除致痫区
并保护肢体运动功能

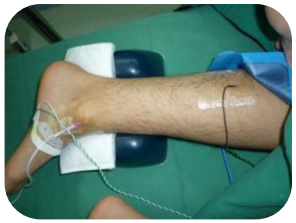


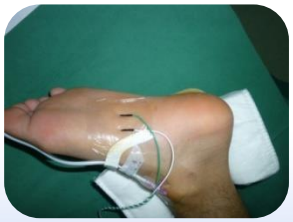




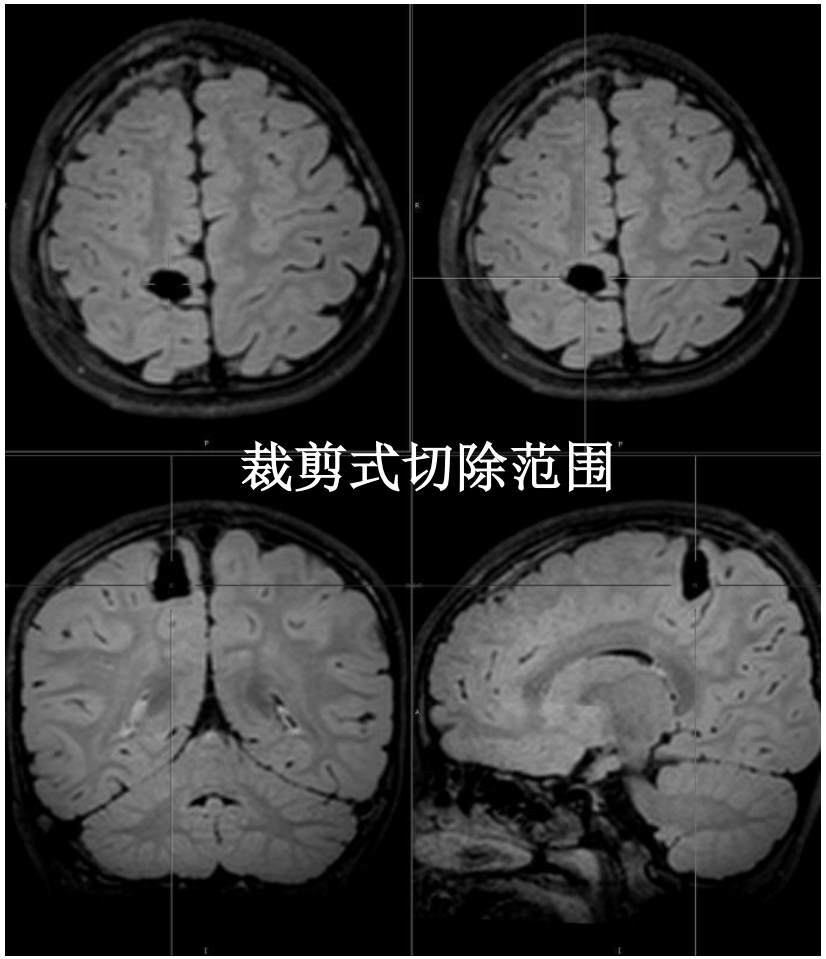








裁剪式局部致痫区切除



- 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**

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