Preoperative Heart Rate Variability as Predictors of Vagus Nerve Stimulation Outcome in Patients with Drug-resistant Epilepsy

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| Patient Number | Gender | Age (y) | Number of AEDs | AEDs and daily dose (mg) | Initial scalp EEG characteristics | AED type | Efficacy | Etopilis duration (sec) | VNS settings | Outcome | Status reduction |
|----------------|--------|---------|----------------|--------------------------|----------------------------------|--------|--------|-------------------------|-------------|---------|------------------|
| 1 | M | 27 | 3 | CBZ(600), VPA(1000), LEV(500) | G.S. Bilateral temporal abnormalities | CP | Non-responder  | 1.6mA, 20sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 25% |
| 2 | M | 31 | 1 | CBZ(1400), VPA(3000), LEV(200) | G.S. Non-specific EEG abnormalities | CP | Responder | 1.0mA, 20sec, ON; Stimulation OFF  | Responder  | seizure reduction  | 57.14% |
| 3 | M | 17 | 3 | CBZ(900), VPA(3000), LEV(1000) | G.S. Bilateral temporal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 40.00% |
| 4 | M | 15 | 3 | CBZ(900), VPA(3000), LEV(1000) | G.S. Bilateral temporal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 57.14% |
| 5 | M | 20 | 3 | CBZ(1000), VPA(5000), LEV(200) | G.S. Bilateral frontal, temporal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 49.48% |
| 6 | M | 33 | 1 | CBZ(1000), VPA(3000), LEV(1000) | G.S. Bilateral temporal abnormalities | CP | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 37.50% |
| 7 | M | 19 | 3 | CBZ(1200), VPA(3000), LEV(1000) | G.S. Bilateral frontal, temporal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 42.86% |
| 8 | M | 12 | 3 | CBZ(1000), VPA(3000), LEV(1000) | G.S. Bilateral temporal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 33.33% |
| 9 | F | 14 | 1 | VPA(1000), LEV(1000), CBZ(1000) | G.S. Right frontal, temporal, parietal focus | CP | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 33.33% |
| 10 | M | 38 | 2 | CBZ(1400), VPA(3000), LEV(1000) | G.S. Bilateral temporal, frontal abnormalities | CP, VPA | Non-responder | 2.0mA, 50sec, ON; Stimulation OFF  | Non-responder  | seizure reduction  | 37.50% |
| P58 | M | 27 | 2 | MGVPA(1000),CPNCM(800) | Bilateral temporal, Right frontal abnormalities | GS, FS | Symptomatic (encephalomalacia) | 14 | 0.5mA,250μs,30Hz,30s ON, 5min OFF | Responder 70.00% |
| P59 | F | 12 | 3 | VPA(750),OXCBZ(975),LTG(1000) | Non-specific EEG abnormalities | FS | | | | |
| P60 | F | 4 | 3 | LTG(1000),CBZ(150),VPA(600),PHB(30),CZP(0.75) | Bilateral parietal, occipital abnormalities | GS | Symptomatic (focal cortical dysplasia) | 6 | 1.8mA,500μs,30Hz,30s ON, 5min OFF | Non-responder 33.33% |
| P61 | F | 27 | 3 | VPA(1500),CBZ(800),TPM(150) | Left temporal, parietal focus | GS, FS | | | | |
| P62 | F | 15 | 3 | LTG(1000),VPA(1000),TPM(150) | Bilateral parietal, occipital abnormalities | GS, FS | | | | |
| P63 | M | 19 | 2 | VPA(2000),LTG(2000) | Non-specific EEG abnormalities | GS, FS | | | | 

Table S-1. Clinical and therapeutic data of 63 patients with drug resistant epilepsy. AED, antiepileptic drug; VPA, valproic acid; CBZ, carbamazepine; TPM, topiramate; CBZ, clobazam; LTG, lamotrigine; MGVPA, magnesium valproate; CPNCM, compound phenobarbital nitrazepam and chlorphenamine maleate; DZP, diazepam; ZNS, zonisamide; TCM, traditional Chinese medicine; PMT, primidone; GBP, gabapentin; VNM, valnromide; GS, generalized seizure; FS, focal seizure.