QEEG Clinical Report

EEGLens

The QEEG report is provided by NPCindex Company, operating under the QEEGhome brand.

Personal Data:

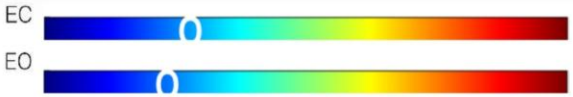
Name:
Gender:
Age:
Handedness:

Clinical Data:

Initial diagnosis:
Medication:
Date of Recording:
Source of Referral:

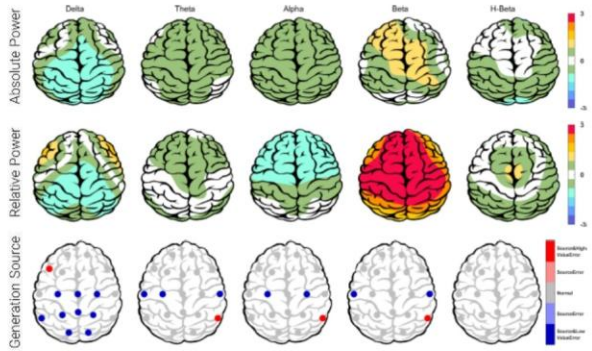
This case belongs to

EEG Quality

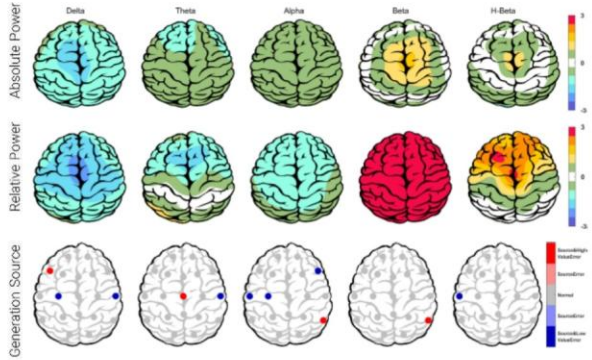


Z-score Information

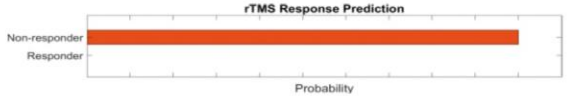
EC



EO



TMS Reponsibility



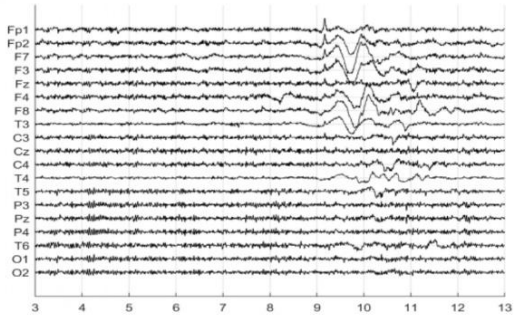
EEG Neuromarker Values

Neuromarker	Region	Value	Assessment
APF - EO	Frontal	11.42	High
AFP - EC	Frontal	10.83	High
APF - EO	Occipital	12.50	High
AFP - EC	Occipital	11.00	High
Arousal Level - EO	-	-	Normal
Arousal Level - EC	-	-	High

Denoising Information

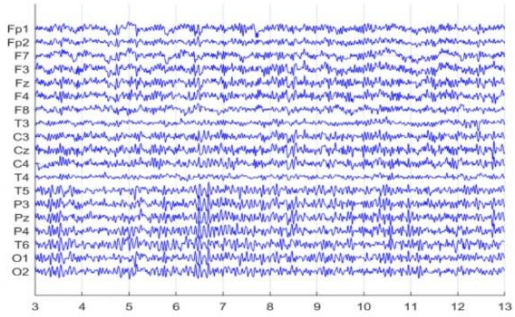
Eye Close

Raw EEG



Rejected Channel

Denoised EEG



Flat Channel

Total Recording Time Remaining:
221.71 sec

Number of Eye and Muscle Elements
Eye: 1
Muscle: 0

Low Artifact Percentage

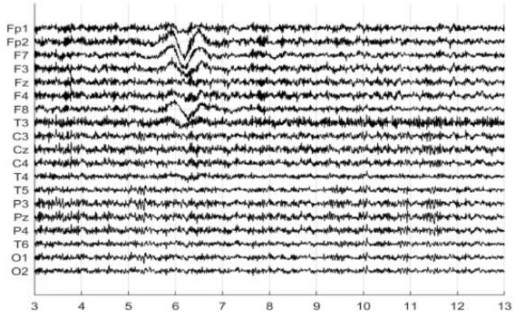
High Artifact Percentage

Total Artifact Percentage

EEG Quality: perfect

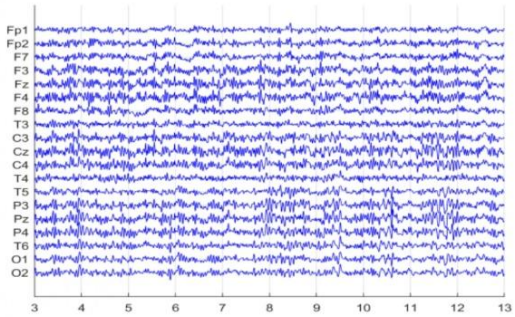
Eye Open

Raw EEG



Rejected Channel

Denoised EEG



Flat Channel

Total Recording Time Remaining:
241.73 sec

Number of Eye and Muscle Elements
Eye: 2
Muscle: 1

Low Artifact Percentage

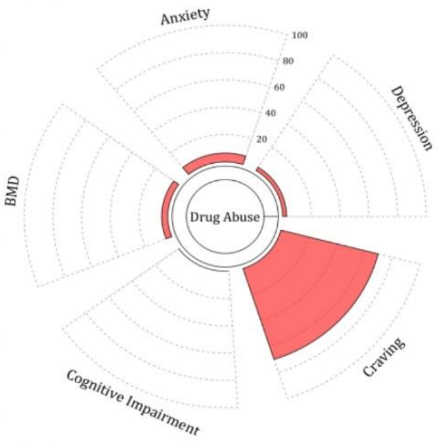
High Artifact Percentage

Total Artifact Percentage

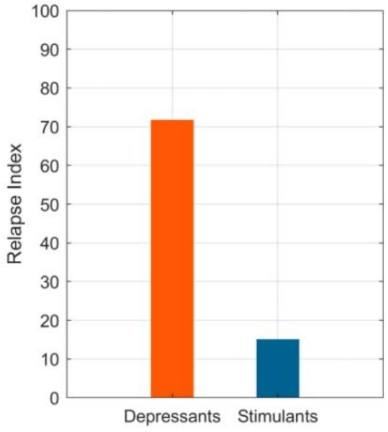
EEG Quality: perfect

Pathological Assessment for Substance Abuse

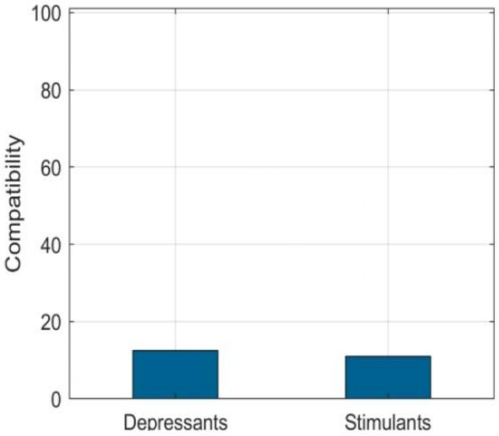
Comorbid Symptoms



Relapse Index

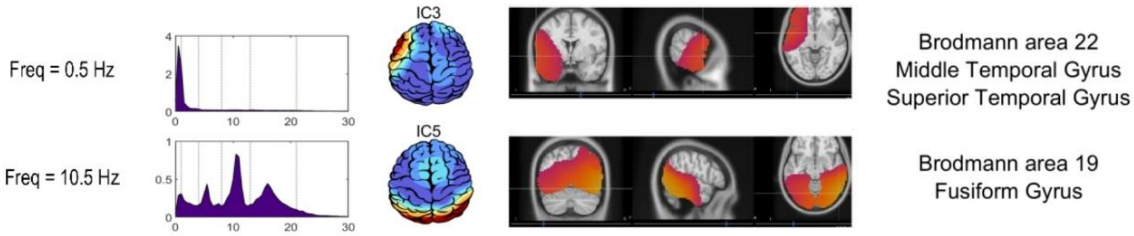


Substance Abuse Compatibility



Functional Problems Source Detection

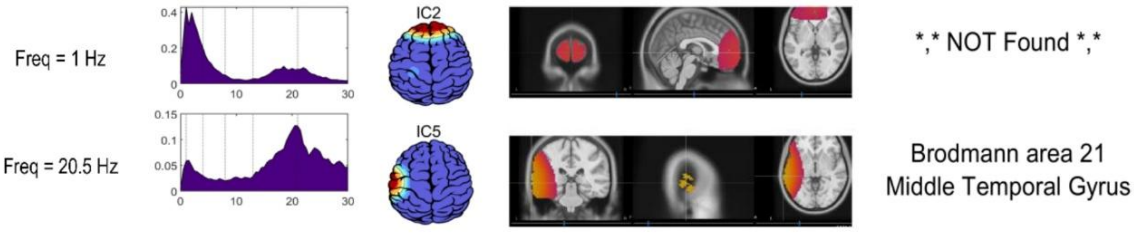
Eye Close



Brodmann area 22
Middle Temporal Gyrus
Superior Temporal Gyrus

Brodmann area 19
Fusiform Gyrus

Eye Open



, NOT Found *,*

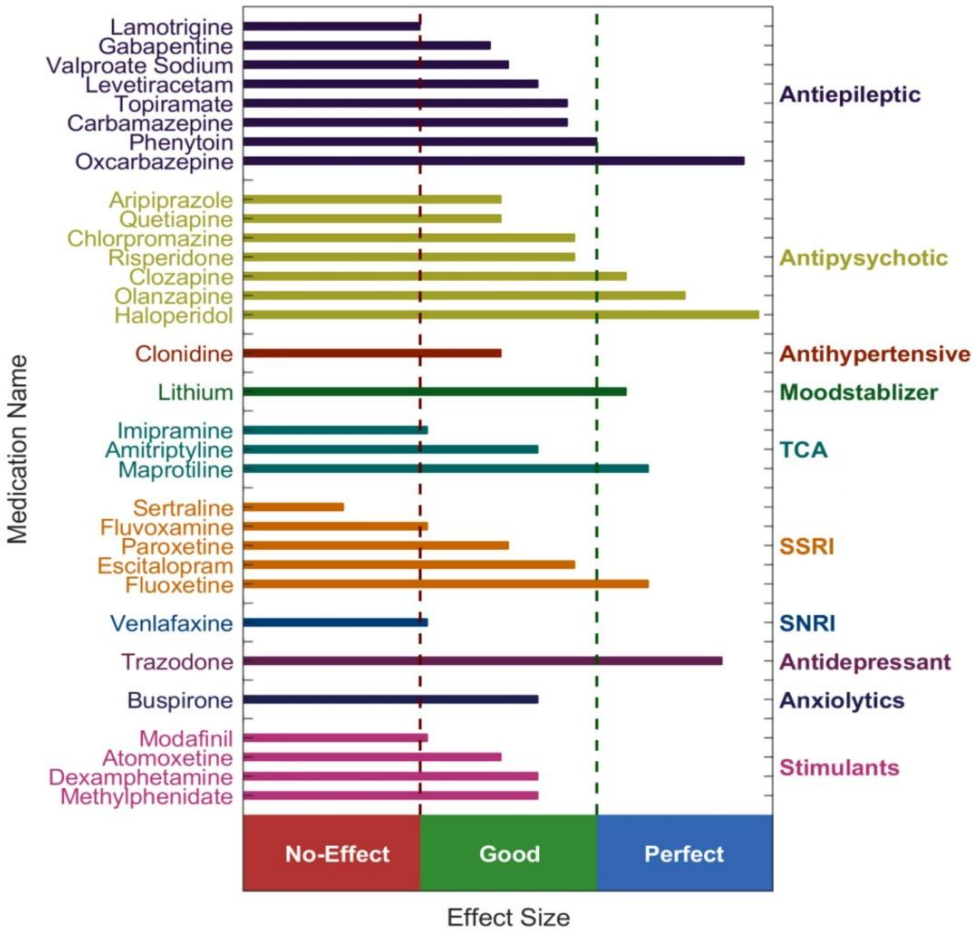
Brodmann area 21
Middle Temporal Gyrus

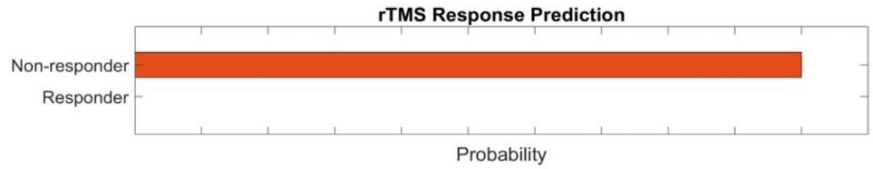
Note

The **Relapse** graph displays the relapse index based on a combination of EEG neuromarkers. It is valid only if the patient has used each of the substances included in the chart; otherwise, the index is not applicable.

The **Compatibility** graph shows how closely the patient's EEG neuromarkers match typical EEG changes caused by specific substances. It helps identify the dominant substance effect in cases of multiple drug use. This index is also valid only if the patient has actually used the substances represented.

QEEG Based Predicting Medication Response





Explanation

These two tables can be considered the most important finding that can be extracted from QEEG. To prepare this list, the NPCIndex Article Review Team has studied, categorized, and extracted algorithms from many authoritative published articles on predict medication response and Pharmaco EEG studies. These articles are published between 1970 and 2021. The findings extracted from this set include 85 different factors in the raw band domains, spectrum, power, coherence, and loreta that have not been segregated to avoid complexity, and their results are shown in these diagrams. One can review details in NPCIndex.com .

Medication Recommendation

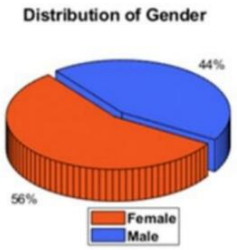
These two charts, calculate response probability to various medications, according only to QEEG indicators. Blue charts favor drug response and red charts favor drug resistance. The longer the bar, the more evidence there is in the articles. Only drugs listed in the articles are listed. These tables present the indicators reviewed in the QEEG studies and are not a substitute for physician selection.

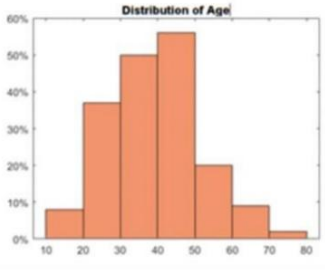
rTMS Response Prediction

Network Performance

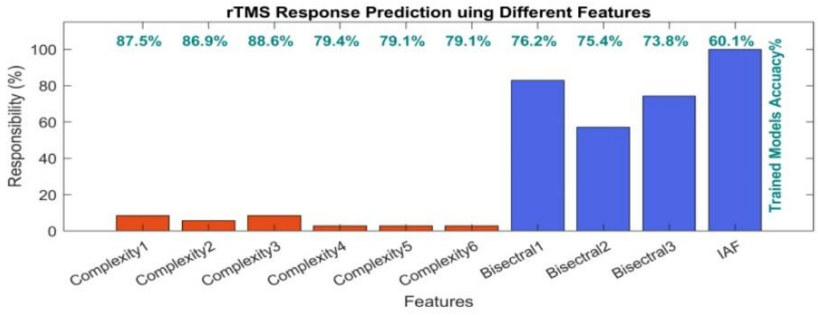
Accuracy: 92.10%
Sensitivity: 89.13%
Specificity: 97.47%

Participants Information

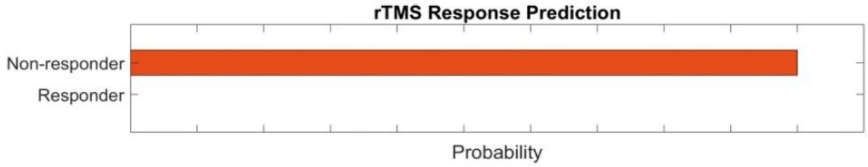




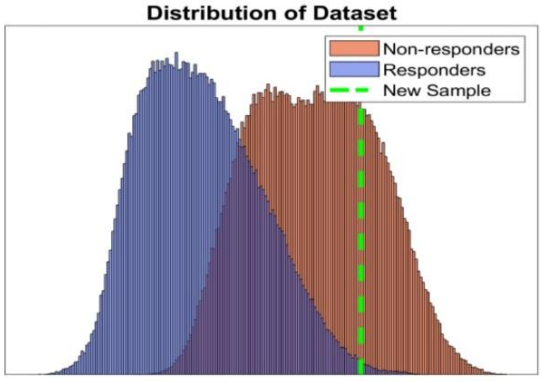
Features Information



Responsibility



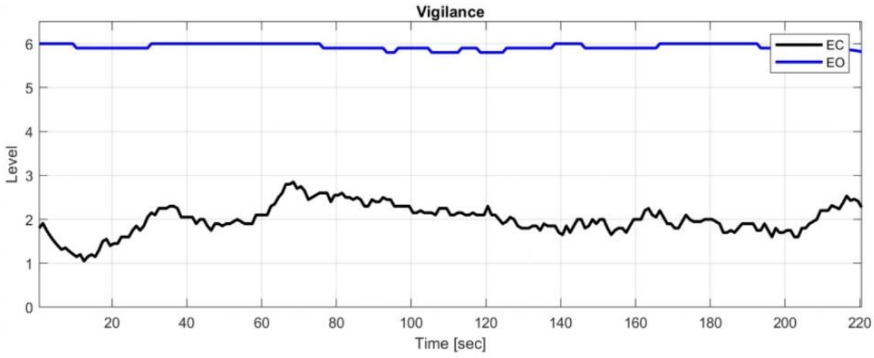
Data Distribution

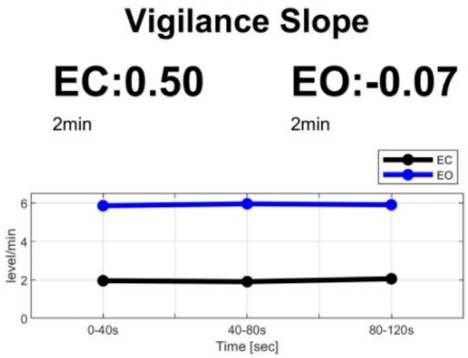


About Predicting rTMS Response

This index was obtained based on machine learning approaches and by examining the QEEG biomarkers of more than 470 cases treated with rTMS. The cases were diagnosed with depression (with and without comorbidity) and all were medication free. By examining more than 40 biomarkers capable of predicting response to rTMS treatment in previous studies and with data analysis, finally 10 biomarkers including bispectral and nonlinear features entered the machine learning process. The final chart can distinguish between RTMS responsive and resistant cases with 92.1% accuracy. This difference rate is much higher than the average response to treatment of 44%, in the selection of patients with clinical criteria, and is an important finding in the direction of personalized treatment for rTMS.

Vigilance

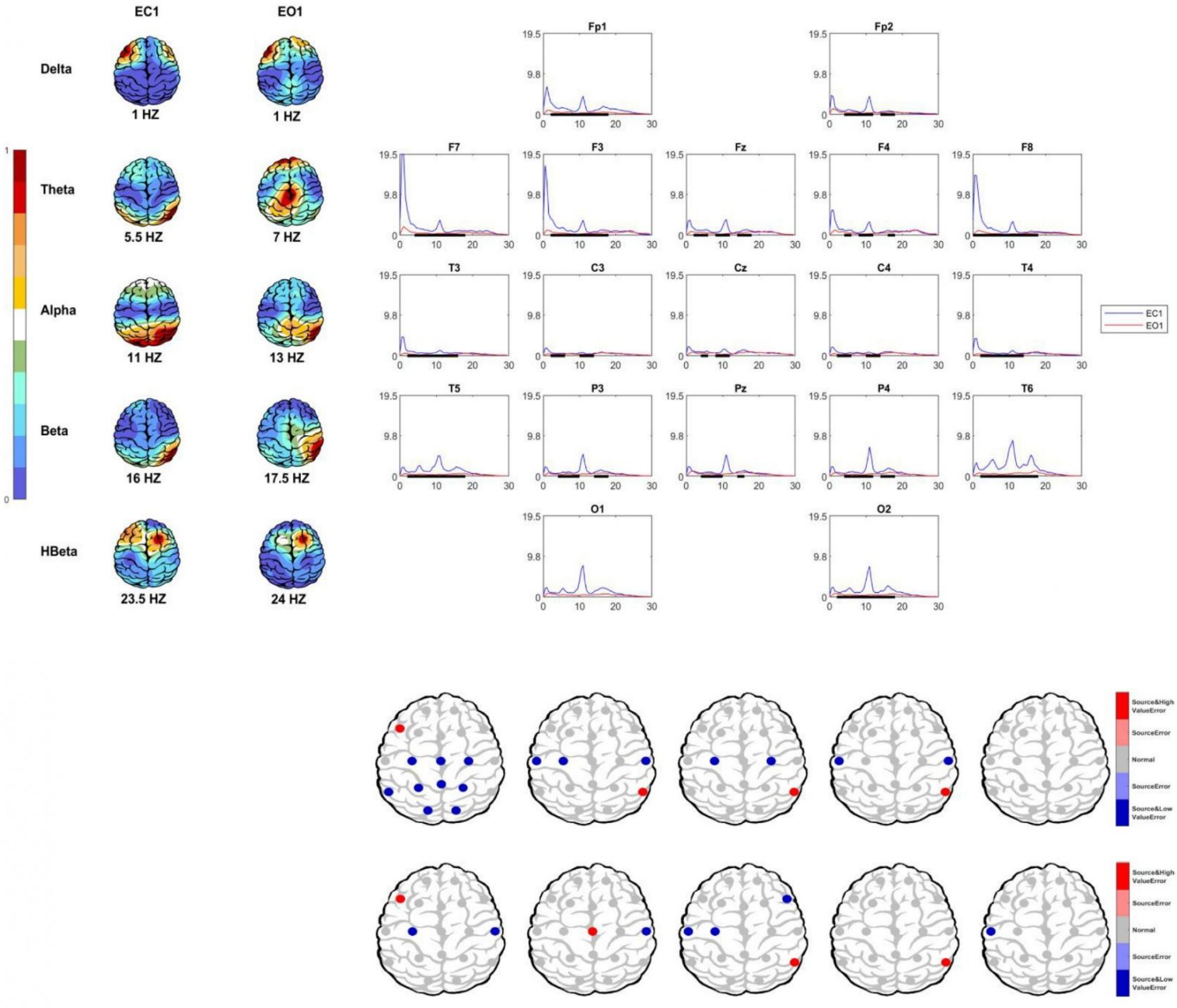




EEG Neuromarker Values

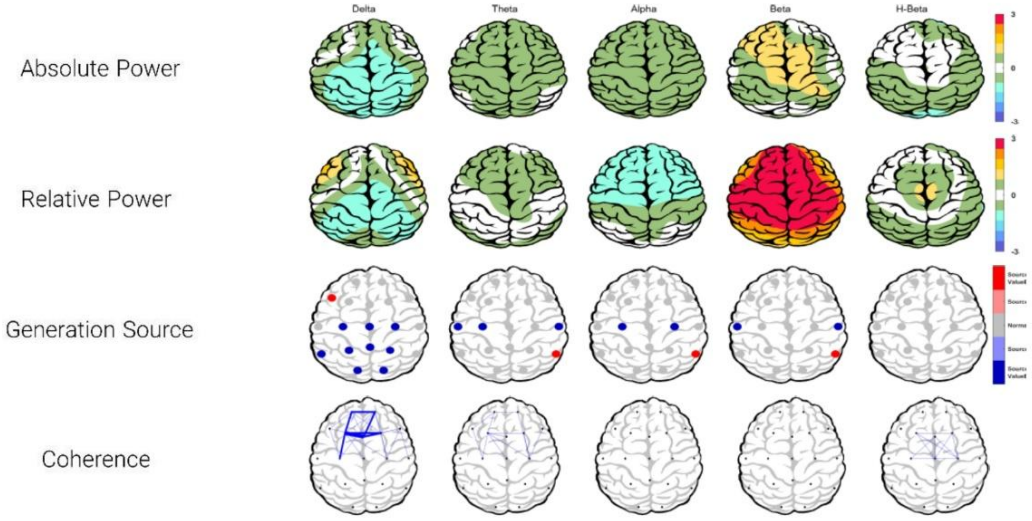
Neuromarker	Region	Value	Assessment
APF - EO	Frontal	11.42	High
AFP - EC	Frontal	10.83	High
APF - EO	Occipital	12.50	High
AFP - EC	Occipital	11.00	High
Alpha Asymmetry - EO	Frontal	-0.04	Anhedonia
Alpha Asymmetry - EC	Frontal	00.04	Anxiety
Alpha Asymmetry - EO	Occipital	00.03	Anxiety
Alpha Asymmetry - EC	Occipital	00.02	Anxiety
Beta Asymmetry - EO	Frontal	-0.11	Anxiety
Beta Asymmetry - EC	Frontal	00.07	Anhedonia
Alpha Blocking	-	-	Not Observed
Arousal Level - EO	-	-	Normal
Arousal Level - EC	-	-	High
Vigilance Level - EO	-	06.00	Normal
Vigilance Level - EC	-	03.00	Normal
Vigilance Mean - EO	-	05.93	Normal
Vigilance Mean - EC	-	02.00	Low
Vigilance Regulation - EO	-	-0.07	Normal
Vigilance Regulation - EC	-	00.50	High
Vigilance 0 Stage (%) - EO	-	96.38	High
Vigilance 0 Stage (%) - EC	-	00.00	Normal
Vigilance A1 Stage (%) – EO	-	00.00	-
Vigilance A1 Stage (%) – EC	-	00.00	-

EEG Spectra

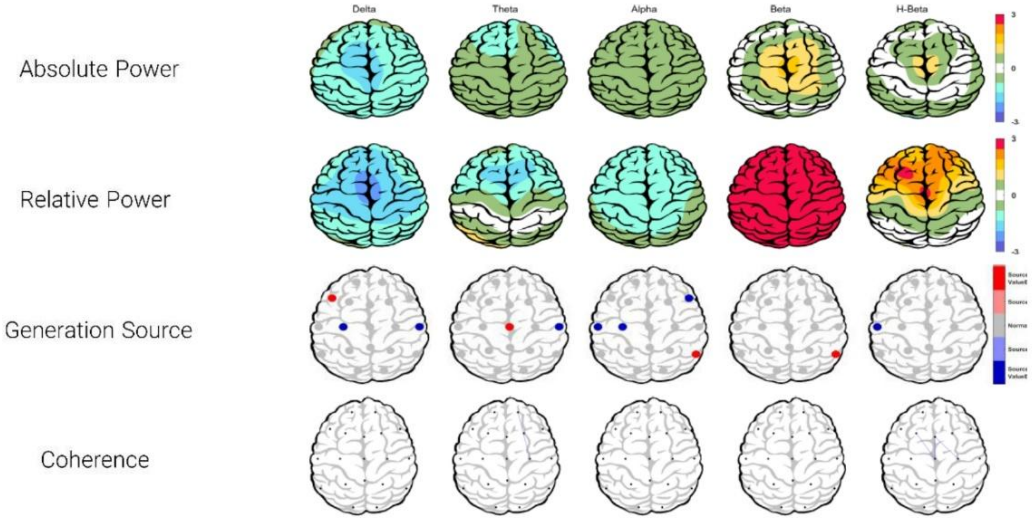

EC1
EO1
Delta
1 HZ
1 HZ
Theta
5.5 HZ
7 HZ
Alpha
11 HZ
13 HZ
Beta
16 HZ
17.5 HZ
HBeta
23.5 HZ
24 HZ
1
0
Fp1
Fp2
F7
F3
Fz
F4
F8
T3
C3
Cz
C4
T4
T5
P3
Pz
P4
T6
O1
O2
19.5
9.8
0
10
20
30
EC1
EO1
Source&High ValueError
SourceError
Normal
SourceError
Source&Low ValueError

Z Score Summary Information

Eye Close

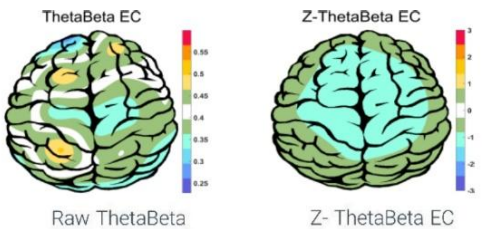


Eye Open

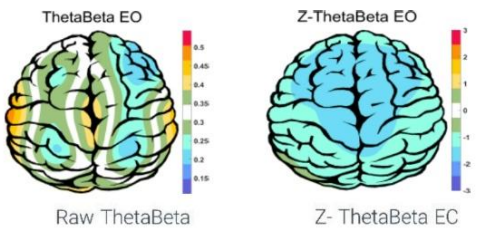


Theta/Beta Ratio

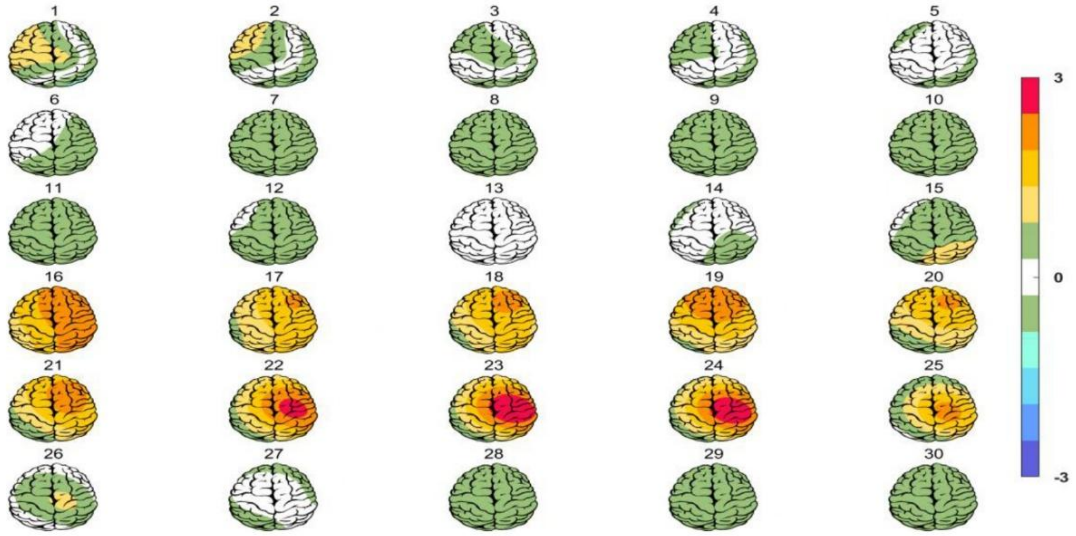
Eye Close



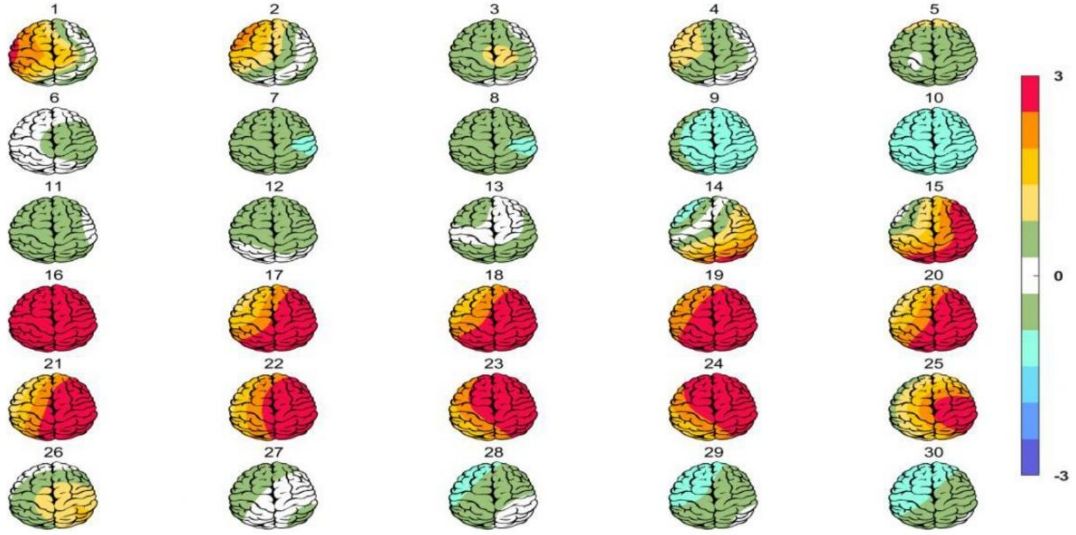
Eye Open



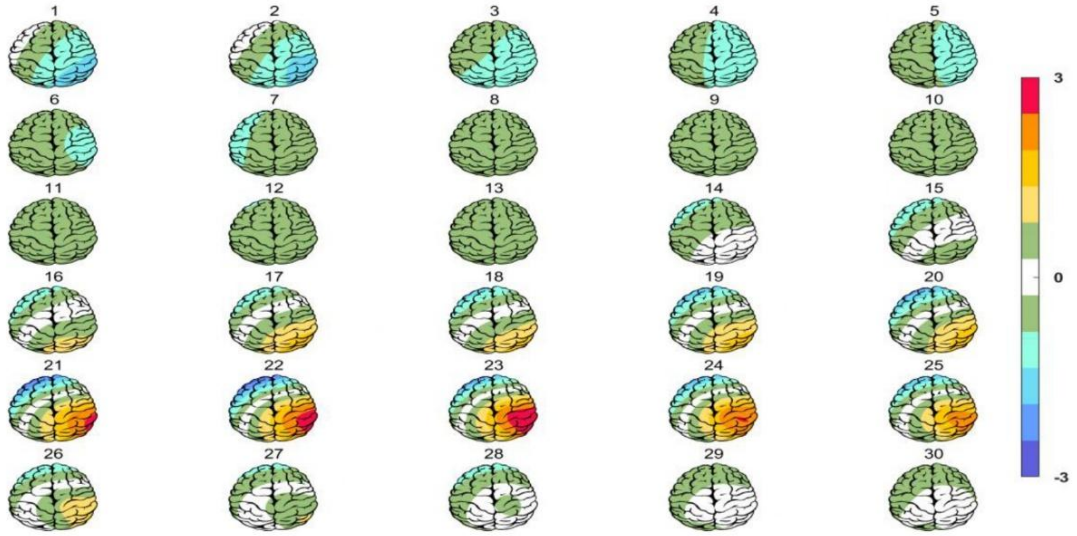
Absolute Power-Eye Close



Relative Power-Eye Close



Absolute Power-Eye Open



Relative Power-Eye Open