

A CONTROVERSY OF EEG LORETA AND NEUROGUIDE REPORTS IN OBSESSIVE - COMPULSIVE DISORDER

Reza Bidaki.^{1*}, Seyed Ahmad Moosavipoor.², Hamid Mirhosseini.³,

¹*Department of Psychiatry, Research center of Addiction and Behavioral Sciences, ShahidSadoughi University of Medical Sciences, Yazd, Iran. Research center of Diabetes, Shahid Sadoughi University of Medical Sciences, Yazd, Iran. Email address Reza.bidaki111@gmail.com*

²*Pharmacologist, Faculty Member, Department of Pharmacology, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

³*Assistant professor of Cognitive neuroscience, Research center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran, Research center of Addiction and Behavioral Sciences, Shahid Sadoughi University of Medical Sciences, Yazd, Iran Email address: mirhoseini.h@gmail.com. Tel:00983536245956 Fax:009803536238561*

***Corresponding Author: -**

Email address: mirhoseini.h@gmail.com.

Abstract: -

There is a Controversy of EEG Loreta and NeuroGuide reports in obsessive compulsive disorder. In OCD, Alpha at high Alpha group is more than low Alpha group.

The controversy is that Alpha power (especially 8 Hz) at Neuroguide low alpha group is unexpectly more than high Alpha group but, result on the Loreta mean is opposite of Neuroguide.

Keywords: Controversy; EEG; Loreta; NeuroGuide; Obsessive-Compulsive Disorder



INTRODUCTION

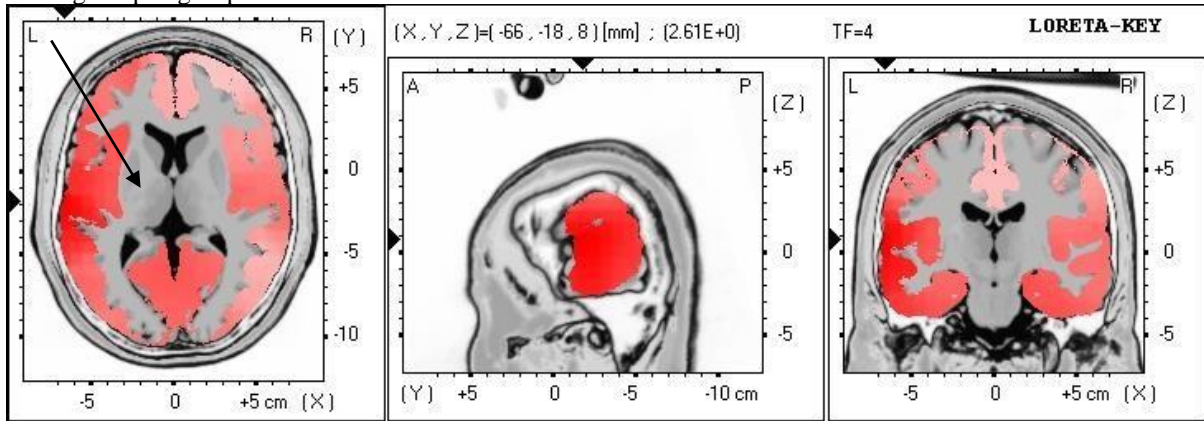
Case Presentation

Two groups of 5 patients with a DSM IV diagnosis of obsessive-compulsive disorder (OCD) were studied in a drug-free state. The patients comfortably were seated in a sound and light-attenuated room, while 10 minutes of eyes-closed resting EEG data using Mitsar system were collected from the 19 monopolar electrode sites of the International 10/20 system, referred to linked earlobes. Then 1 minutes of artifact-free data were extracted from the EEG record for quantitative analysis, while offline montage was Laplacian.

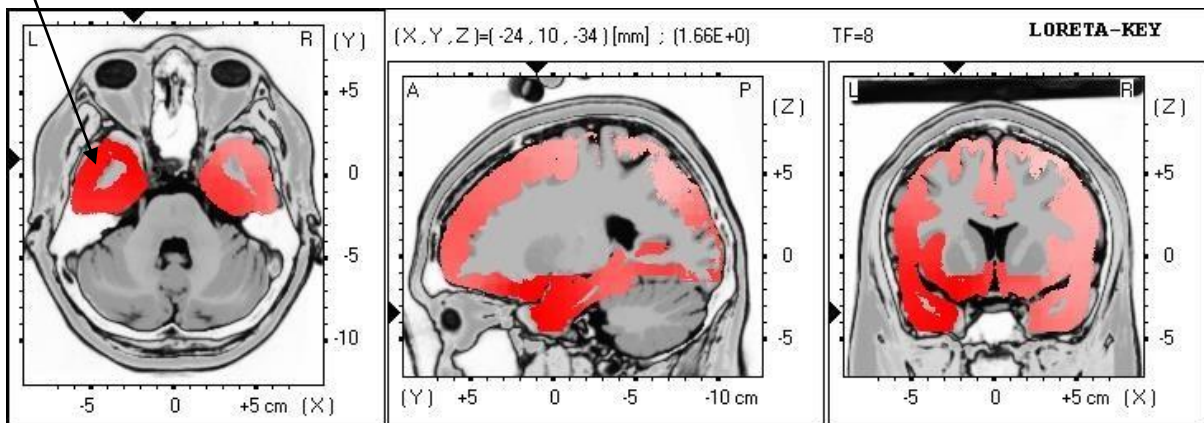
Results

Panel A:

Theta at high Alpha group has been enhanced



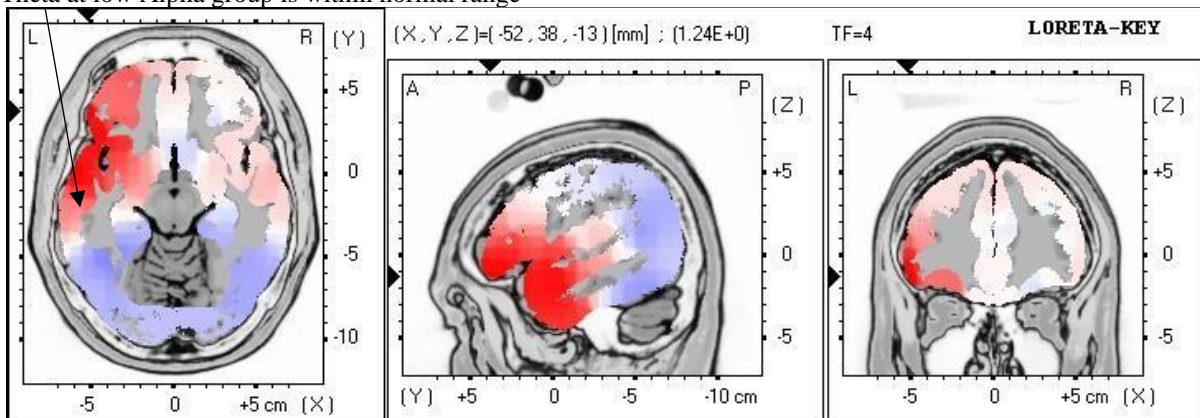
Alpha at high Alpha group is more than low Alpha group (expected)



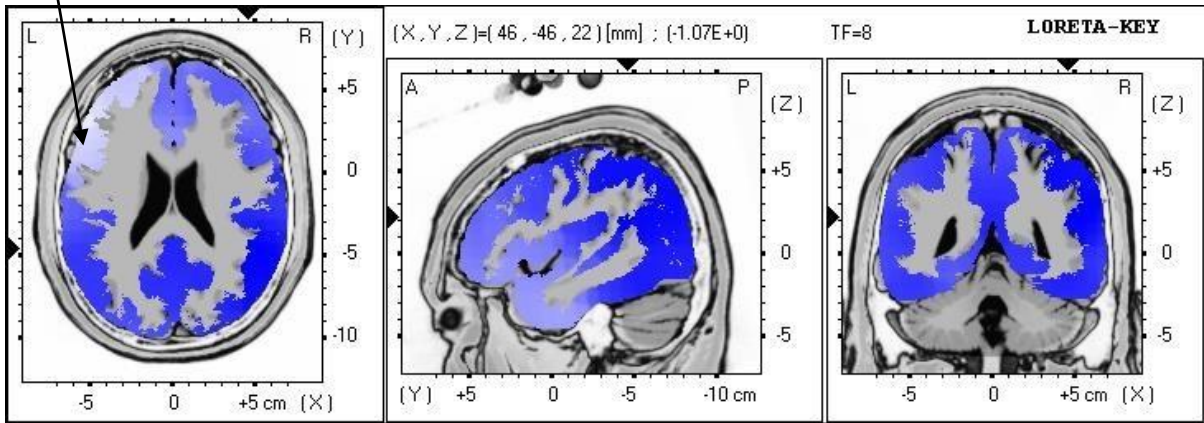
Loreta average of high Alpha group

Panel B:

Theta at low Alpha group is within normal range



Alpha at low Alpha group is less than high Alpha group (expected)



Loreta average of low Alpha group

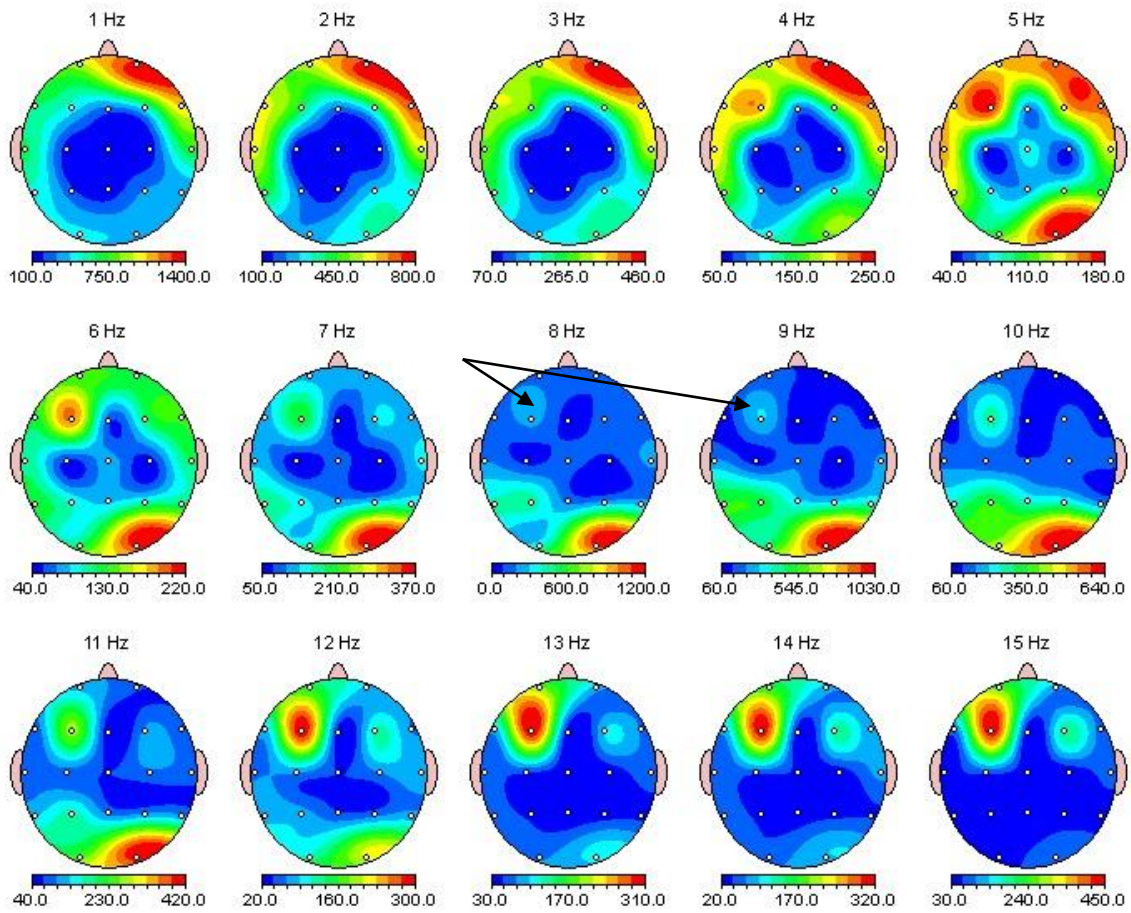
Panel C:

According to Neuroguide report, Theta at both groups has been enhanced Alpha at high Alpha group

Montage: Laplacian

ec.ngg

FFT Absolute Power Group Mean (uA Sq)



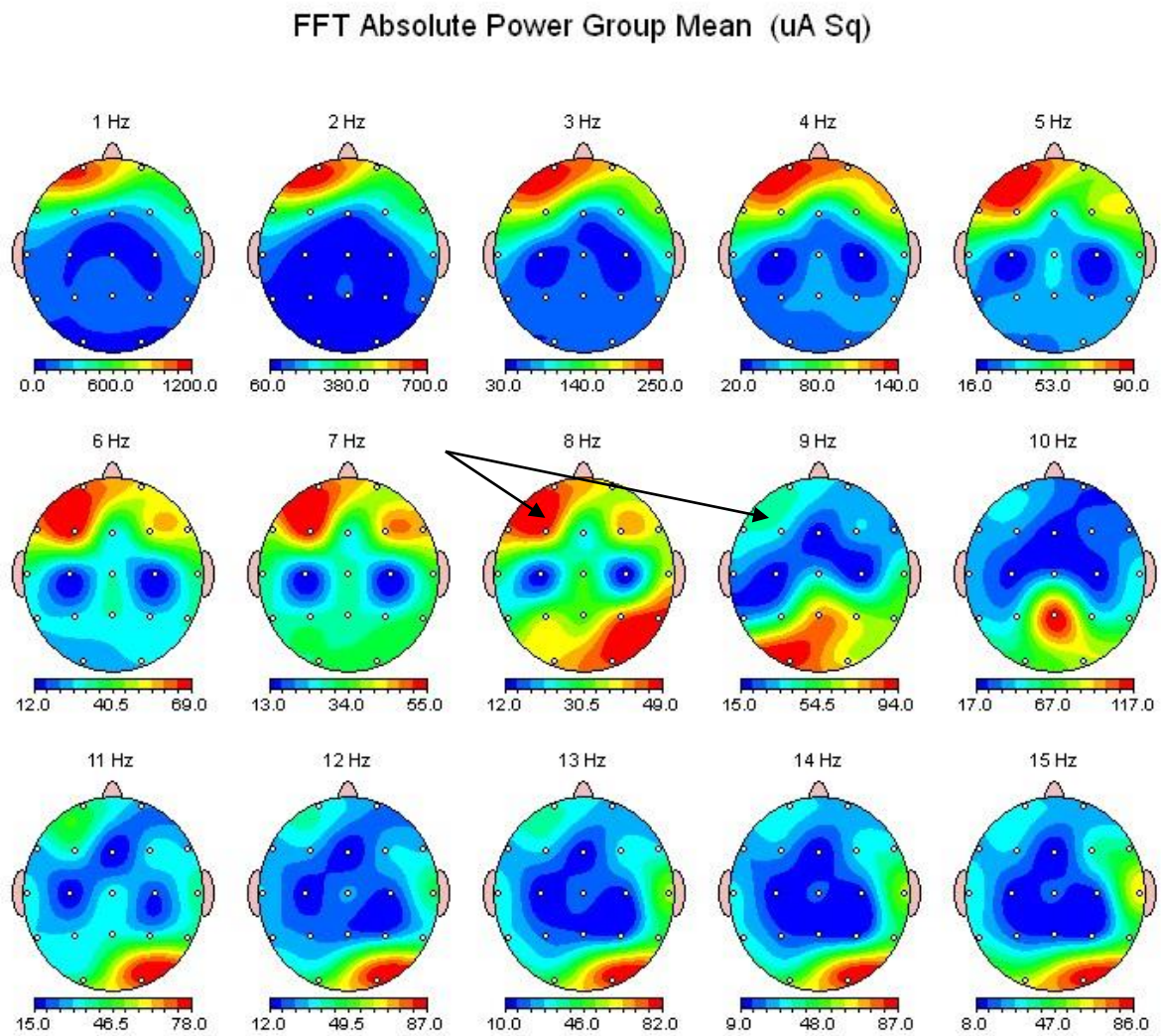
NeuroGuide average of high Alpha group

Panel D:

Alpha at low Alpha group (an unexpected Alpha power)

Montage: Laplacian

ec low.ngc



NeuroGuide average of low Alpha group

Discussion

The EEG pattern of OCD patients sometimes may not be consistent with which seems in the literature so, further caution with all type of treatments (especially Neuro therapy) is necessary (1, 2) . There is a Controversy of EEG Loreta and NeuroGuide reports in Obsessive-Compulsive Disorder. .It is concordance with our study.

Conclusion

The controversy is that Alpha power (especially 8 Hz) at Neuroguide low Alpha group is unexpectly more than high Alpha group but, result on the Loreta mean is opposite of Neuroguide .

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