

عنوان مقاله:

Investigation the Differences of Anterior Cingulate Cortex (ACC) And Frontal Lobe Activity Between MDD And Control Group With EEG

محل انتشار:

هفتمین همایش نقشه برداری مغز ایران (سال: 1399)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction About ۳۰۰ million people around the world are suffering from depression. Also, one in five people around the world has experience of Depression symptoms, at least one time in his life. Previous studies have shown increasing theta frequency activity at the frontal and Anterior Cingulate Cortex (ACC) areas. **Methods** In this study, ۲۷ patients with a clinical diagnosis of MDD disorder (۱۵ males, ۱۲ females) with mean age ۴۰.۷۷ and std=۱۵.۱۴ were examined with EEG. For the control group, normal data of neuroguide software was used. All ۱۹-channel EEG waves were recorded according to the international ۱۰-۲۰ system. The noise has been eliminated by the ICA method. Then, using eLoreta software, the activity of the deep areas is calculated. The activity of ACC at theta frequency and anterior regions (Fp1, Fp2, F7, F3, Fz, F4, F8) theta and Alpha frequencies in both MDD and normal groups were calculated and compared. **Results** The results showed that there was an increase in theta frequency at the ACC area between ۱۱ subjects of the MDD group. It has also been shown that there is an increase in the frontal Theta and Alpha frequencies of respectively ۱۴ and ۱۴ subjects in the MDD group. The results also showed that there was a significant difference between two subjects of MDD group with normal group in theta frequency of ACC and theta and Alpha frequencies of frontal area. **Conclusion** Significant differences were found between the two groups of MDD and normal indicate the differences in the brain function of these groups. The difference in performance in the ACC region is also consistent with the results of the PET studies. Also, the difference in frontal theta and Alpha frequencies, which is consistent with previous results of EEG studies, can mean frontal lobe dysfunction in major depressive disorder and dysfunction in executive functions.

کلمات کلیدی:

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