

عنوان مقاله:

Alteration of intrinsic brain networks in insomnia disorder

محل انتشار:

هفتمیّن همایشٌ نقشه برداری مغز ایران (سال: 1399)

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خلاصه مقاله:

IntroductionInsomnia disorder (ID) is a common psychiatric disorder in which the patient cannot easily get to sleep or stay asleep.ID is associated with aberrant mental functions[1]. However, the pathophysiology of ID is not clear [Y, W]. In this study, we applied independent component analysis to resting-state fMRI data to identify potential brain network alterations in patients with ID compared to healthy subjects. Methods We recruited by healthy controls and FY ID patients (aged YI-FA years; F/M ratio~=Y) recruited from the Sleep Disorders Research Center, in the Kermanshah University of Medical Sciences. The diagnosis was performed by the international classification of sleep disorders, version \". The preprocessing stages applied on the subjects include brain extraction, gray matter segmentation, applying a 100-frequency high-pass filter, motion correction using MCFLIRT, spatial smoothing, and finally registration to the Ymm MNI standard space, using FSL VF.... Next, using the FSL VF... MELODIC tool, group-ICA algorithm was applied to all the data. Then, we performed dual-regression to the ICA results algorithm in order to back project the group ICA results to subject level, and also comparing each ICA component in group level with related subject-level component between the healthy and ID patient groups using permutation testing. Results We identified 11 independent components. Back projecting the group ICA into subject level, and comparing every component in group level with that of subject level, five components were significantly different between patients and controls. In particular, we found decreased functional connectivity in the visual networks, mainly in the supracalcarine, intracalcarin, parietal operculum, and supercarcarine, and was increased functional connectivity in the left somatosensory network in the patient group compared to healthy subjects (p < ... family-wise error (FWE)) (Figure 1). ConclusionsOur findings .demonstrated that ID is associated with alterations in the visual network and the somatosensory network

کلمات کلیدی:

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