RESTING-STATE FUNCTIONAL CONNECTIVITY IN TEMPORAL LOBE EPILEPSY PATIENTS WITH AFFECTIVE SYMPTOMS

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Depression and anxiety, are most frequently psychiatric symptoms in patients with temporal lobe epilepsy **(TLE)**. Resting state functional connectivity**(RSFC)** disturbances and disconnections in **RSNs** are two remarkable characteristics of TLE (Cheng Luo, 2012).**Key words**:temporal lobe epilepsy (TLE), resting-state networks (RSNs), anxiety-depressive symptoms (e.g.ADS). **The aim:**to investigate FC in RSNs in TLE patients with ADS.**Materials and methods:** 54 patients with TLE from18-50 y.o.were included. ADS were assesed by psychiatric interview with use of scales:BDI, HADS,HAMA,MADRS.All subjects underwent 9-min resting-state fMRI session.**Analysis and statistik:** SPM8, 'GIFT' toolbox ICA for isolate RSNs; for comparison - one-way ANOVA and two-sample t-test.($p < 0.005$,10-voxel clustersize).**Results:** In groups of patients with ADS (n=36) a moderate level of depressive and anxiety symptoms (HAMA=25,4±2,6; MADRS=20,1±2,6) was found. There are 8 RSNs were identified: visual, FC audial, sensomotor, frontotemporal dorsal and ventral, frontoparietal right and left, default mode**(e.g.DMN)** networks. The main interest was focused on FC in key nodes of DMN as they are involved in emotional processing and may play a significant role in the origin of affective symptoms.Significantly increased FC was identified in the left insula, superior parietal cortex, left frontal cortex, right precuneus, right parahippocampal gyrus, right frontal cortex in patients with ADS. Increased FC in these nodes of neuronal networks can be explained as by the presence of affective symptoms in this group so as an their association with epileptic processes. **Conclusion:** significant advances in imaging represent an opportunity to investigate psychopathological features, where TLE can be considered as a good model for investiagion other mental disorders.