Application of wavelet bicoherence for diagnosing obstructive sleep apnea syndrome

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This work aims to identify biomarkers in the electrical activity of the brain during sleep associated with obstructive sleep apnea syndrome. For this purpose, work was carried out on the registration of polysomnographic records in apparently healthy subjects and patients with obstructive sleep apnea syndrome. Further, studies of synchronization between different EEG channels were carried out based on the use of continuous wavelet transform. At the same time, a number of features were revealed in synchronization between different EEG channels in patients with obstructive sleep apnea syndrome compared with conditionally healthy subjects.