

DEEP SLEEP AND AROUSAL DISORDERS. A COMPARISON BETWEEN NOCTURNAL FRONTAL LOBE EPILEPSY AND JUVENILE MYOCLONIC EPILEPSY

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OBJECTIVES

Many primary sleep disorders are more common in people with epilepsy than the general population. NREM disorders of arousal (DoA) are more common in patients and their relatives with Nocturnal Frontal Lobe Epilepsy (NFLE). It is ascertained the close relationship between JME and the sleep-arousal system.

There isn't any videopolysomnographic (VPSG) and spectral study, until now, exploring deep sleep and evaluating the incidence of DoA in adult patients with JME and NFLE.

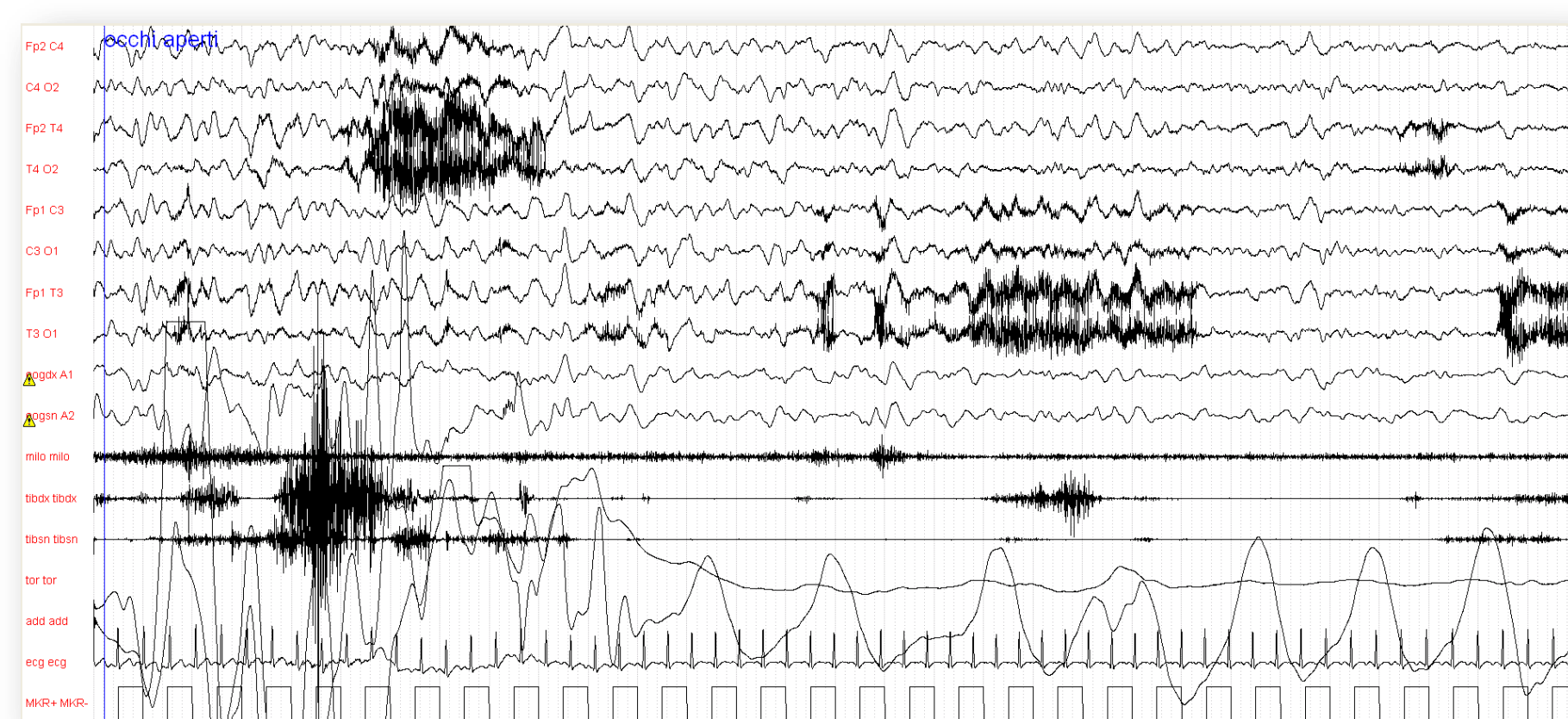
METHODS

This study involved 13 patients with JME, 13 patients with NFLE and 26 age-matched healthy controls. All subjects underwent clinical assessment and evaluation with VPSG. We evaluated the sleep profile of the three groups using visually inspection, macrostructure study and spectral analysis of N3 sleep. The presence of disorders of DoA was evaluated.

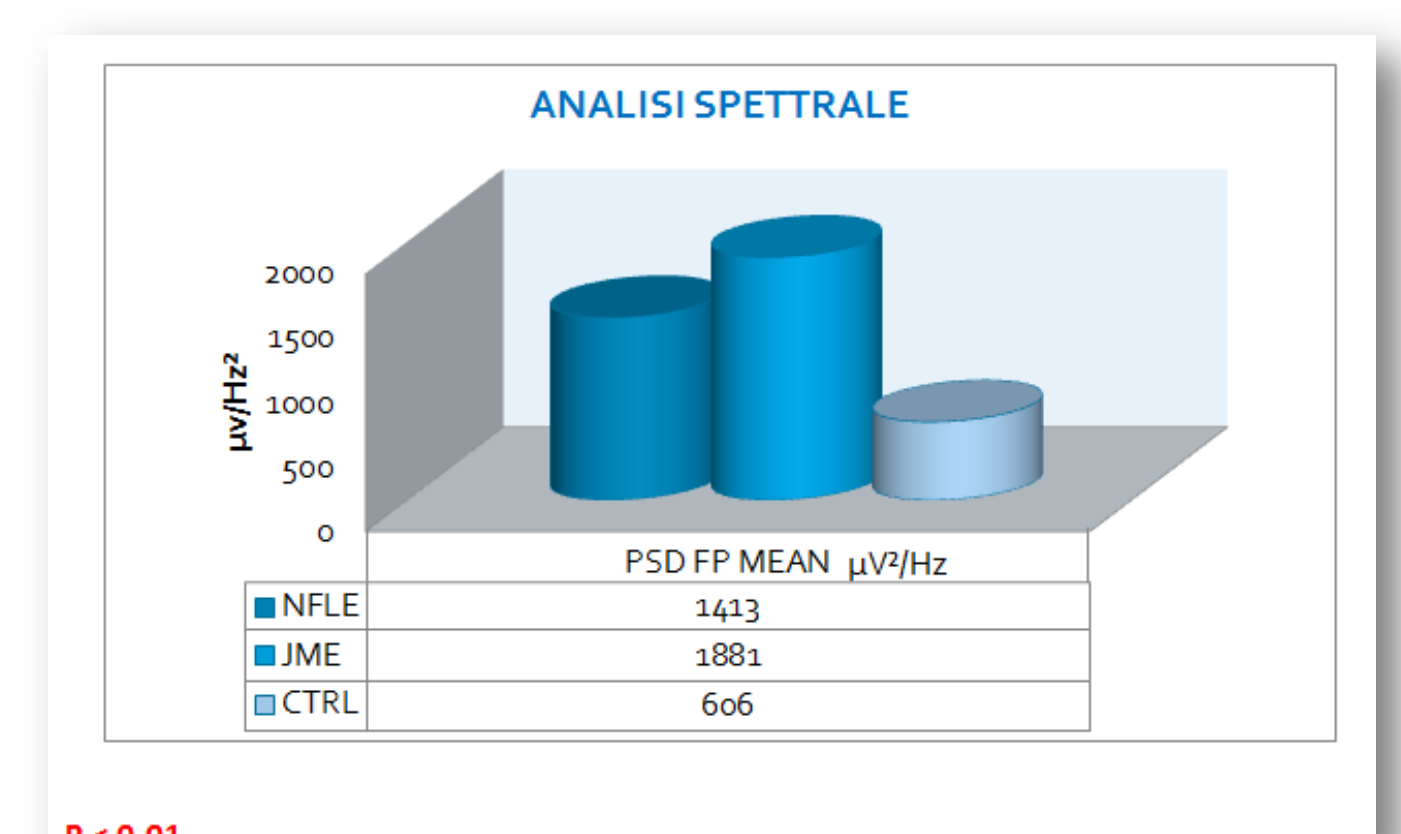
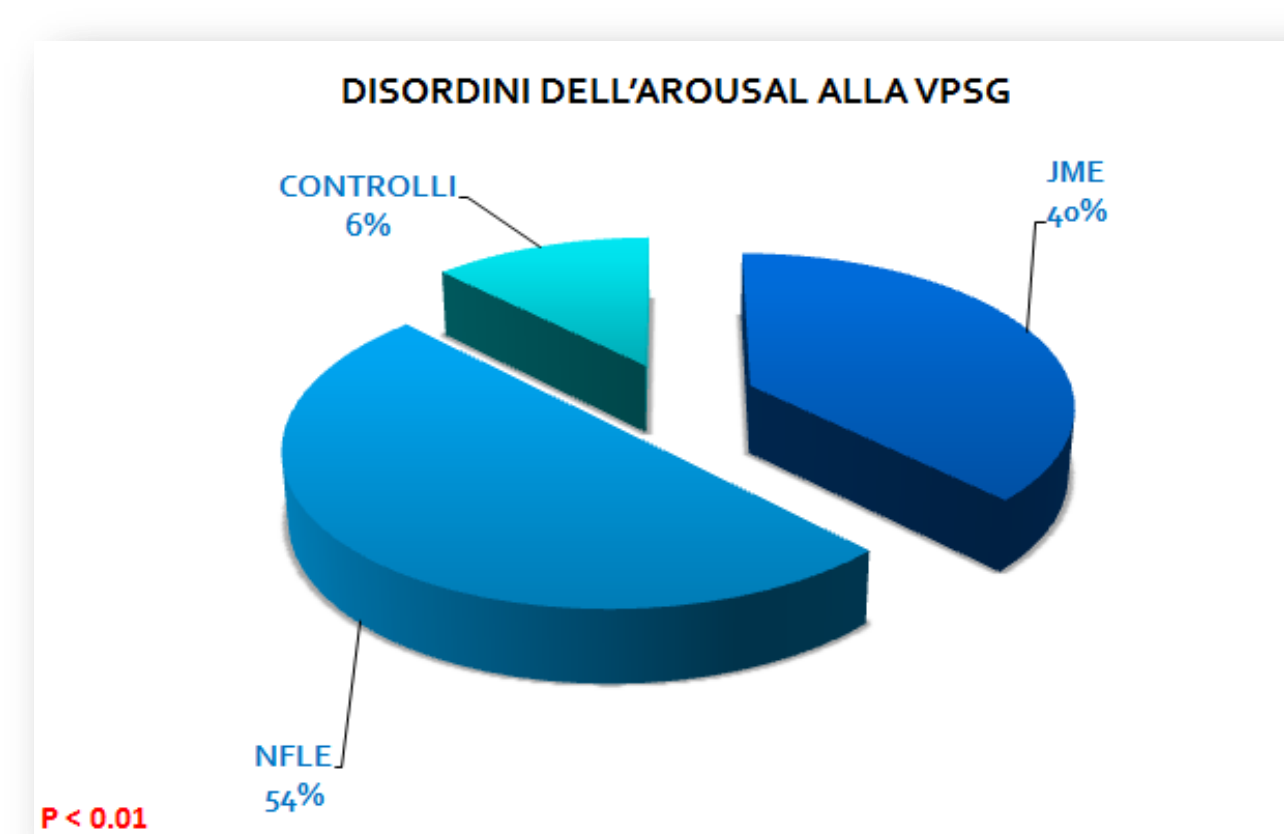
We performed statistical analysis using tests for parametric and non-parametric data and ANOVA AND MANOVA tests.

RESULTS

Among patients with NFLE, 8 had one or more DoA event during the night; 6 JME patients showed a DoA; only 2 controls showed a electro-clinical pattern of DoA. We found a good correlation between visual data and spectral analysis of N3 sleep.



(LF: 0.3 Hz; HF: 30 Hz; sweep 30"; sens: 100 μ V/cm)



CONCLUSION

Our results demonstrate that the occurrence of local dissociated states is an intrinsic feature of physiological NREM sleep. A mechanism offering good explanation for nocturnal events in NFLE and in JME is "state dissociation". A dysfunctional frontal function in N3 sleep, shared by JME and NFLE, could be crucial in the development of DoA.

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