
POLYSOMNOGRAPHIC FINDINGS IN A COHORT OF CHRONIC INSOMNIA PATIENTS WITH BENZODIAZEPINES ABUSE.

M. Mazza¹, A. Losurdo², E. Testani², G. Marano¹, M. Di Nicola¹, S. Dittoni², V. Gnoni², C. Di Blasi², N.M. Giannantoni², L. Lapenta², V. Brunetta², P. Bria¹, L. Janiri¹, S. Mazza², G. Della Marca²

¹Neurosciences, Psychiatry, Rome, Italy ; ²Neurosciences, Neurology, Rome, Italy

Study objectives: to evaluate sleep modifications induced by chronic benzodiazepines (BDZs) abuse.

Methods: cohort study, comparison of sleep measures between BDZs abusers and controls. Drug Addiction Unit (Institute of Psychiatry) and Unit of Sleep Disorder (Institute of Neurology) of the Catholic University in Rome. Six outpatients were enrolled, (4 men and 2 women, mean age 53.3±14.8, range: 34 - 70 years) affected by BDZ chronic abuse; 55 healthy controls (23 men and 32 women, mean age 54.2 ±13.0, range: 27–76 years). All patients underwent clinical evaluation, psychometric measures, ambulatory polysomnography, scoring of sleep macrostructure and microstructure (power spectral fast-frequency EEG arousal, Cyclic Alternating Pattern - CAP), Heart Rate Variability.

Results: BDZs abusers had relevant modification of sleep macrostructure and a marked reduction of fast-frequency EEG arousal in NREM (Patients: 6.6±3.7 events/hour, Controls 13.7±4.9 events/hour, U-test: 294, p=0.002) and REM (Patients: 8.4±2.4 events/hour, Controls 13.3±5.1 events/hour, U-test: 264, p=0.016), and of CAP rate (Patients: 15.0±8.6 %, Controls: 51.2±12.1 %, U-test: 325, p<0.001).

Discussion: BDZs abusers have reduction of arousals associated with increased number of nocturnal awakenings and severe impairment of sleep architecture. The effect of chronic BDZs abuse on sleep may be described as a severe impairment of arousal dynamics; the result is the inability to modulate levels of vigilance.