Abstract

The EEG has been widely employed in the assessment of electrophysiological changes induced by distinct medications. Its sensibility in detecting alterations produced by a specific substance may be enhanced by methods of quantitative analyses (qEEG). The present study aimed at investigating the modulatory effects of bromazepam on brain dynamics. The effects of bromazepam (3mg) on EEG power distribution were tested in 10 healthy individuals, in a double-blind experiment. The electrophysiological measure was analyzed across experimental conditions, moments, and electrodes, in the delta, theta, alpha and beta frequency bands separately. A significant decrease of relative power was observed in delta and theta (main effect of condition). No interactions were observed. Although the expected anxiolytic EEG profile was not observed (increased beta and decreased alpha activity), this specific result may be related to other factors such as dosage used and the subjects’ general physiological state, and not necessarily to the drug itself.

Keywords

Benzodiazepine, bromazepam, quantitative EEG, relative power, brain dynamics.