

Study Comparing the Effects of Sibutramine and Phentermine on Psychomotor Performance

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ABSTRACT

Pharmacotherapy plays an important role in the management of obesity. At present two drugs which act centrally are registered in Thailand; namely, sibutramine and phentermine. In this study, the objective was to compare the effects of sibutramine 15 mg with phentermine 15 mg and placebo on psychomotor performance in Thai healthy volunteers. A double blind, crossover studies with one week wash out interval was performed in 20 Thai healthy volunteers aged between 18-65 years. During each treatment psychomotor speed tests of warned and unwarned simple reaction time (SRT) of visual, auditory and tactile types were measured. Phentermine shortened both warned and unwarned simple reaction time (visual and auditory but not tactile simple reaction time) significantly than sibutramine and placebo. Phentermine also significantly increased diastolic blood pressure and pulse rate. These effects were also related to the peak plasma concentration of orally extended release phentermine and sibutramine. Adverse reactions including palpitation and insomnia were reported by 75% of subjects in phentermine-treated group and 40% in sibutramine-treated group. This study indicated that phentermine acts as a CNS stimulant and may result in the increase in blood pressure and pulse rate, while sibutramine produced much less stimulating effects on the CNS and cardiovascular systems than phentermine.

KEY WORDS: Phentermine, Sibutramine, crossover study, Psychomotor performance