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THEME CONNECT [Pharmacopsychiatry](#). 2000 Mar;33(2):47-53.**Critical evaluation of the effect of valerian extract on sleep structure and sleep quality.**[Donath F](#)¹, [Quispe S](#), [Diefenbach K](#), [Maurer A](#), [Fietze J](#), [Roots J](#).

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Abstract

A carefully designed study assessed the **short-term (single dose)** and **long-term (14 days with multiple dosage)** effects of a valerian extract on both objective and subjective sleep parameters. The investigation was performed as a randomised, double-blind, placebo-controlled, cross-over study. Sixteen patients (4 male, 12 female) with previously established psychophysiological insomnia (ICSD-code 1.A.1.), and with a median age of 49 (range: 22 to 55), were included in the study. The main inclusion criteria were reported primary insomnia according to ICSD criteria, which was confirmed by polysomnographic recording, and the absence of acute diseases. During the study, the patients underwent 8 polysomnographic recordings: i.e., 2 recordings (baseline and study night) at each time point at which the short and long-term effects of placebo and valerian were tested. **The target variable of the study was sleep efficiency.** Other parameters describing objective sleep structure were the usual features of sleep-stage analysis, based on the rules of Rechtschaffen and Kales (1968), and the arousal index (scored according to ASDA criteria, 1992) as a sleep microstructure parameter. Subjective parameters such as sleep quality, morning feeling, daytime performance, subjectively perceived duration of sleep latency, and sleep period time were assessed by means of questionnaires. After a single dose of valerian, no effects on sleep structure and subjective sleep assessment were observed. After multiple-dose treatment, sleep efficiency showed a significant increase for both the placebo and the valerian condition in comparison with baseline polysomnography. We confirmed significant differences between valerian and placebo for parameters describing slow-wave sleep. In comparison with the placebo, slow-wave sleep latency was reduced after administration of valerian (21.3 vs. 13.5 min respectively, $p < 0.05$). The SWS percentage of time in bed (TIB) was increased after long-term valerian treatment, in comparison to baseline (9.8 vs. 8.1% respectively, $p < 0.05$). At the same time point, **a tendency for shorter subjective sleep latency, as well as a higher correlation coefficient between subjective and objective sleep latencies, were observed under valerian treatment.** Other improvements in sleep structure - such as an increase in REM percentage and a decrease in NREM1 percentage - took place simultaneously under placebo and valerian treatment. **A remarkable finding of the study was the extremely low number of adverse events during the valerian treatment periods** (3 vs. 18 in the placebo period). **In conclusion, treatment with a herbal extract of radix valerianae demonstrated positive effects on sleep structure and sleep perception of insomnia patients, and can therefore be recommended for the treatment of patients with mild psychophysiological insomnia.**


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