A new targeted insomnia treatment
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Jaehoon Seol. "A drug that specifically acts on brain receptors involved in wakefulness, rather than the whole brain, could avoid this."

Suvorexant inhibits orexin receptors of the wake-promoting system, thus inhibiting wakefulness. This makes it a more targeted treatment than GABA agonists. To study whether this would result in less severe side effects, the researchers conducted a randomized controlled trial with 30 healthy men in a sleep lab. Participants took either suvorexant, brotizolam (a GABA agonist), or a placebo before falling asleep and were then woken up 90 minutes later. Their cognitive and physical functioning was then tested.

Suvorexant induced fewer impairments in body balance upon awakening than brotizolam. This could be associated with the cerebellum, a part of the brain that coordinates balance. Namely, the cerebellum contains GABAA receptors but not orexin receptors. In this case, brotizolam may have affected cerebellar functioning, while suvorexant did not.

"This is the first study to investigate the potential side effects of suvorexant and to compare these with those of brotizolam," says Masashi Yanagisawa, lead author of the study. "Also, suvorexant was just as effective as brotizolam in the treatment of insomnia, with comparable effects on sleep duration and efficiency."

With a reported prevalence of 10-60 percent, insomnia is considered a serious health issue. These new findings are potentially significant and could lead to further large-scale studies in patients with insomnia.
