Comparative analysis of z-hypnotics and benzodiazepines for insomnia

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ABSTRACT

The Brazilian population has an incidence of 72% for sleep disorders, the main one being insomnia, in addition, the use of z-hypnotics increased by 73% among Brazilians in the years 2019 to 2021. Based on this, this study aims to review the literature on the use of z-hypnotics, such as zolpidem and eszopiclone, and their repercussions compared to benzodiazepines. As a methodology, scientific articles from SciELO, Revista Neurociências, Revista Brasileira de Psiquiatria and Revista Brasileira de Neurologia cataloged in recent years were used. As a result, it was found that the use of benzodiazepines represents a high risk for memory consolidation when compared to z-hypnotics, in addition to being less safe for the elderly population and at higher risk of chemical dependence. The new generation of hypnotics acts on GABA-A receptors, amplifying their action and causing rapid synaptic inhibition with cell membrane hyperpolarization. That is, it causes a relaxing effect on the central nervous system, reducing the latency for sleep onset without altering REM sleep, a phase related to memory consolidation. In benzodiazepines, in addition to the high tendency to dependence, there is an increase in the N2 phase of N-REM sleep and a decrease in REM sleep density. Cases of anterograde amnesia, cognitive motor retardation, daytime sleepiness, and tolerance development have been reported. In an analysis of data from the National Survey on Access, Use, and Promotion of Rational Use of Medicines (PNAUM 2022), a prevalence of 9.3% of benzodiazepine use in the elderly was reported, even with side effects of sedation, mental confusion, dependence, and absence syndrome. It is concluded that the use of z-hypnotics, especially in the long term, is safer due to their high degree of selectivity by the alpha subunit of the GABAergic receptor, especially when compared to benzodiazepines, being considered the most appropriate substitution among hypnotics.

Keywords: Hypnotics, Z-Drugs, Zolpidem, Eszopiclone, Memory.

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