Abstract

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Student's state of the art lecture 13. Pharmacological treatment of insomnia

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Pharmacological treatment of insomnia

Aging is associated with several changes of sleep, and over half of the elderly suffer from insomnia, which is typically undertreated. Nonpharmacological interventions should be first used, and if they are unsufficient, pharmacological treatment should be considered.

Typical sleep changes with aging are decreased total nocturnal sleep time, delayed onset of sleep, advanced circadian phase, reduced slow-wave sleep, reduced REM-sleep, reduced threshold for arousal from sleep, fragmented sleep with multiple arousals and daytime napping. Insomnia can be divided into primary and secondary insomnia. Pain, nocturia, COPD, gastroesofageal reflux, cardiac insufficiency, depression, dementia and inappropriate medication can be causes of secondary insomnia. Sleep hygiene is the nonpharmacological basic when treating insomnia. Harmful medications or substances should also be considered to cancel if possible.

When treating insomnia among elderly, the most common pharmacological approach have been benzodiazepines. Short- and intermediate-acting benzodiazepines should be used among the elderly after individual consideration of type of insomnia. Because of the side-effects (confusion, amnesia, night wandering, paradoxal agitation and cognitive impairment, sedation, increased risk of falling), long-acting benzodiazepines should not be used at all when treating geriatric patients.

Non-benzodiazepines (eszopiclone, ramelteon, zaleplon, zolpidem, zopiclone) are becoming more used and have been shown to be effective in short-term treatment of insomnia. The advantage of them is less potential daytime sedation because of relatively brief half-life. Also the psychomotor performance and memory appear to be better preserved than with benzodiazepines.

Other medications that are used when treating insomnia are amitriptyline, trazodone, antihistamines, testosterone and melatonin. Melatonin seems to be promising at the moment, but more studies are needed to show the real efficacy of this agent. Ramelteon, a selective agonist for melatonin receptors has been shown to reduce sleep latency and increase total sleep time and is nor approved for the treatment of insomnia in US.

REM-sleep behaviour disorder, narcolepsy and cataplexy, sleep-related movement disorders and snoring and obstructive sleep apnea have their own treatment possibilities.

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