Herbal medicine for sleep disturbances in the elderly

Previous studies of sleep in the elderly subjects have revealed a decrease in the amount of slow-wave sleep, and rapid eye movement (REM) sleep, reduction of nocturnal melatonin secretion, and advancement of the sleep phase. In addition, periodic limb movements during sleep (PLMs) are commonly observed in the elderly and often cause sleep disturbances. PLMs are generally considered to produce sleep fragmentation by provoking arousals. Recent studies have demonstrated the effect of YKS on the sleep architecture in the elderly patients who complained subjective sleep disturbances. After treated with YKS, polysomnography studies revealed increases in total sleep time, sleep efficiency and stage II sleep. Decreases in electroencephalographical arousals and PLMs were also reported. YKS has reported to be effective and well tolerated in the elderly patients who complained of sleep disturbances. Yokukan-San (YKS: Tsumura Co. Ltd. Japan), a traditional herbal prescription, was developed as a remedy for restlessness and agitation. YKS contains several herbal medicines (Atractylodis lanceae rhizoma, Hoelen, Cnidii rhizoma, Angelicae radix, Bupleuri radix, Glycyrrhizae radix, and Uncariae ramulus et uncus). Angelicae radix, an important component of YKS, is known to affect dopamine, γ-aminobutyric acid (GABA), and serotonin receptors. In aged rats, YKS has been reported to improve the decreased level of dopamine in the prefrontal cortex. YKS has been indicated to ameliorate age-related impairments of working memory via the dopaminergic system. Therefore, YKS may be effective for improving the decreased dopaminergic neuronal function that is responsible for the emergence of PLMs and restless legs syndrome (RLS). Animal studies have demonstrated that YKS exhibits an anxiolytic effect mediated by GABA receptors. These pharmacological actions on dopaminergic and GABAergic systems may be beneficial for reducing PLM and treating sleep disturbances including RLS.

Biography
Hideto Shinno is Graduated from Hiroshima University School of Medicine (MD) and (PhD). He received National License of Medical Doctor. Currently, he is working as Professor at Department of Liaison Psychiatry, Kagawa University School of Medicine, Kagawa, Japan.

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