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Neuropeptide receptor genes polymorphism and sleep disorders

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Abstract

Objective: To study the association gene of candidate NPSR1 rs324981 with sleep disorders in the open population of men 45–64 years of Novosibirsk.

Methods: The study of the association candidate gene polymorphisms with sleep disorders was carried out during the examination of a random representative sample of men 45–69 years (n = 1770). The response rate was 61%. The median age is 56.5 year. Every 12 subject was selected for genotyping (n = 147). To assess the level of sleep was used a questionnaire which was filled with self-test. Statistical analysis was performed using SPSS-11.5.

Results: The level of sleep disorders in the male population of 45–64 years was 79.9%. The frequency of homozygous C / C genotype of neuropeptide S (gene NPSR1 rs324981) was 19.4%, T / T genotype occurs in 27.8%, C / T genotype - 52.8%.

Men dominated the T allele of -54.2%, and the C allele - 45.8% growth trend Fnd dissatisfaction with the quality of their sleep among men. Men T- allele carriers, most evaluated their sleep as "satisfactory" in 69% of cases, ($\chi 2$ = 15,713 df = 8, p <0.05).

Conclusion Association found men carrier T - allele of neuropeptide S (gene NPSR1 rs324981), a sleep disorder.

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Experience using suvorexant to treat delirium

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Abstract

Objective: Suvorexant is a sleep aid that acts on the orexin receptor. The current study examined experience using suvorexant to treat delirium in order to determine suvorexant's efficacy.

Subjects and Methods: Patients who received suvorexant in this Department from January to October 2015 were studied retrospectively. Privacy was considered and subjects were not individually identifiable. Patients consisted of 82 males and 77 females; most patients were in their 70s, although some were in their 80s.

Results: The most prevalent symptom (94 patients) was insomnia, followed by delirium (58 patients) and other complaints (7 patients). Suvorexant was efficacious in treating 84 patients with insomnia (69%). Of the 58 patients who exhibited delirium, most were in their 80s. Suvorexant was efficacious in treating 36 patients with delirium (78%).

Discussion: Suvorexant is a drug to treat insomnia, and there was no evidence of its efficacy in treating delirium. However, the current results revealed that suvorexant is as or more efficacious at treating delirium as it is at treating insomnia. Additional cases need to be assembled in the future to determine if suvorexant is efficacious at treating delirium.

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Suvorexant induced restless legs syndrome; a case report

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Abstract

Natural sleep-awake cycle is regulated by serotonin, histamine, acetylcholine, and dopamine. Orexin system is believed to play a role in controlling these systems, and its dysfunction results in narcolepsy. Suvorexant is the first dual orexin receptor antagonist (DORA) to be approved for the treatment of insomnia. We describe a patient who presented with restless legs syndrome (RLS) induced by suvorexant.

The case was an 81-year-old woman who was diagnosed with depression at the age of 77. She was in remission for some years except for insomnia, which was treated with 1 mg/ day of flunitrazepam, 0.25 mg/day of brotizolam and 8 mg/day of ramelteon. She had a history of severe RLS induced by 12.5mg/ day of quetiapine, which disappeared with the discontinuation of quetiapine. She complained of insomnia during hospitalization for an aortic valve replacement for severe aortic stenosis. Because the benzodiazepines did not sufficiently improve the insomnia, she was started on 15mg/day of suvorexant. On the first night of suvorexant treatment, she was unable to sleep well due to the crawly feelings in the legs. The uncomfortable sensation disappeared the following day but reappeared at night. Suvorexant treatment was discontinued and the RLS subsequently disappeared. To our knowledge, this is the first case of restless legs syndrome induced by suvorexant.

Orexin neurons project to the entire central nervous system including locus coeruleus, laterodorsal tegmental nucleus, pedunculopontine tegmental nucleus, basal forebrain, tuberomammillary nucleus, dorsal raphe nuclei and ventral tegmental area. These brain arousal systems project to serotonin, histamine, acetylcholine, and dopamine neurons. Suvorexant treatment may have caused the imbalance of monoamines, leading to the development of RLS in this case.

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The effectiveness of prolonged-release melatonin among primary insomnia patients whose sleep schedule was set

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Abstract

Objective: Prolonged-release formulation of melatonin (PRM) is approved for insomnia patients ≥ 55 years old. Taking PRM 1–2 hours before bedtime is recommended, and a 26 ~ 47% response rate was reported in France and UK. Our study purpose is to investigate the effectiveness of PRM when used for insomnia patients whose sleep schedule was set.

Method: We reviewed the medical records of primary insomnia patients prescribed PRM after visiting the Psychiatry Department sleep clinic, Asan Medical Center, to obtain routinely asked information regarding sleep satisfaction, sleep-time schedule, and class and dose of sleeping pills. We selected patients who were dissatisfied with their sleep even after their sleep schedule was set before taking PRM. We analyzed satisfaction rate and treatment-emergent adverse events (TEAE) after taking PRM.