Anti-Prostanoids as treatment for Sleep Apnea

Published date: Sept. 10, 2015

Technology description

UIC researchers have found that interfering with apnaegenic sensory inputs using antagonists of prostanoids improve central and obstructive sleep-breathing disorders. Antagonists of prostanoids interfere by endogenous prostanoids. Using antagonists of prostanoids along with conventional pharmaceuticals is also an effective treatment method.

Sleep apnea is a potentially life-threatening disorder characterized by temporary breathing interruptions during sleep. Sleep apnea is usually accompanied by snoring and results in daytime fatigue and other disabling characteristics.

According to the National Institute of Health, more than 15 million Americans are affected with sleep apnea including 25% of middle-aged men and 10% of middle-aged women. This serious problem is currently treated with mechanical forms of therapy that deliver positive airway pressure (PAP), surgical procedures, and pharmacological treatments that are not generally sufficient.

Recognizing the need for a novel treatment of sleep apnea, the inventors at UIC have developed a specific method for the prevention or amelioration of sleep-breathing disorders.

Through an effective amount of antagonists of prostanoids that interfere with the activity of endogenous prostanoids or a combination of prostanoid antagonists and other tested pharmacological agents, this technology has been able to improve both central and obstructive sleep-related breathing disorders.

By interfering with apneagenic sensory inputs to the brainstem, the present invention will have applications to a variety of sleep-related breathing disorders including: sleep apnea syndrome, upper airway resistance syndrome, apnea of prematurity, Cheyne-Stokes respiration, obesity hypoventilation syndrome, congenital central hypoventilation syndrome, and snoring.

Application area

Targeted method of pharmacological treatment of variety of sleep related disorders

Advantages

Alleviation of sleep-related breathing disorders

Specific administration of prostanoid antagonist for alleviation of central and obstructive breathing disorders

Ready availability of therapeutic agents
Simplicity of use
Decreased side effects
Greater patient compliance with treatment

Institution

University of Illinois, Chicago

Inventors

Miodrag Radulovacki
David Carley

联系我们

叶先生

电 话：021-65679356
手 机：13414935137
邮 箱：yeyingsheng@zf-ym.com