



Journal search and commentary

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This section is devoted to reporting on a select group of articles clinically relevant to sleep medicine that have been published in journals not widely read by the international community of sleep clinicians. We use the following selection criteria: first, clinical significance, second, scientific quality, third, general clinical interest and fourth, educational value. Some preference will be given to the articles from journals less known to the sleep field. It is hoped that this will develop a better global coverage of journals. We recognize that any selection of a handful of articles will be somewhat arbitrary. It is, however, hoped that the articles selected will be of interest to you, the reader, so that when you get your copy of this journal you will turn with interest to these pages as one snapshot of the wider world of sleep medicine.

In this issue we present a pair of important articles related to neurological mechanisms regulating function in sleep. The first looks at the effects of subthalamic nucleus stimulation (STN) on sleep in patients with Parkinson's Disorder (PD). This study relates the improvements in motor function during sleep with changes in sleep. Separating direct effects of STN on sleep from those secondary to motor changes poses a Sisyphean-challenge for this type of study. Nonetheless this approach provides a potentially useful method for exploring the basis for the major sleep problems commonly experienced with PD. It is particularly noteworthy that the Periodic Limb Movements of Sleep (PLMS) observed with PD are not clearly reduced with STN. The second study reviewed below provides the best data to date on signal processing of auditory information during sleep. The functional MRI data indicate sleep state produces alterations of the normal wake stimulus response that differs by area of the brain. In particular, emotionally significant stimuli produce enhanced activation in the left amygdala and left prefrontal regions during sleep. This may indicate a mechanism for signal processing specific to the sleep state and may reflect the differences in arousal threshold in relation to the meaning of the words spoken.

The final article reviewed provides the best data yet available on the relation between growth hormone (GH), cortisol, sleep and aging. While this is a cross-sectional study, the results are nonetheless impressive showing the expected close relation between GH and slow wave sleep, which decrease together over the adult life span. This close relationship supports the view that the mechanisms causing slow-wave-sleep and nocturnal secretion of GH are tightly linked. Increasing one should presumably alter the other as has been suggested by other studies. GH may not be the elixir of youth, but the change in GH with age provides a possible mechanism relating change in sleep with age to effects of age on more general health.

We offer these reviews hoping you will find them informative and interesting.