

Asian specific feature of sleep habits and sleep disorders

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I am honored to have been an associate editor of *Sleep and Biological Rhythm* (SABR) for this 4 years. This journal has been covering lots of research field including science for sleep and biological rhythm, sociology and epidemiology, clinical implications for sleep disorders and sleep technology. Actually, numerous papers have been submitted to SABR from many countries all over the world. Every time I read submitted papers, I feel that sleep hygiene and sleep problems among populations are different in each area, and that in particular Asian population has unique characteristics of sleep habits and symptomatology of some sleep disorders.

As for sleep habits in Eastern Asia, nocturnal sleep length of general population is shorter than that in other areas of the world (Korean and Japanese have the shortest

sleep length due to later bedtime and relatively earlier rise time). Although comparison of quality of life measures or the prevalence of sleepiness or fatigue-related job errors and accidents among countries have not been conducted, chronic sleep debt in these populations are speculated to have a negative impact on their social lives. In pediatric generation, co-sleeping or sleeping in the same room with their parents is more frequent in Asian countries compared with Western countries, and this phenomenon possibly leads to higher influence of parental sleep habits to children's sleep patterns. In adolescent generation, trend for eveningness lifestyle seems marked in Eastern Asia especially Japan, possibly causing sleepiness related decline in their school performance. As a whole, intensified sleep education for keeping appropriate length of nocturnal sleep length with earlier bedtime would be necessary in Eastern Asian population.

Asian specific clinical characteristics are also recognized in some sleep disorders. For example, Asian patients with obstructive sleep apnea (OSA) are less obese than Caucasian patients despite the quite similar respiratory disorder indices or frequencies of OSAS related cardiovascular morbidities, and this phenomenon has been speculated to come from the difference in craniofacial morphology between the races. As for movement disorders, previously reported prevalence rates of restless legs syndrome (RLS) have been quite lower in Asian populations compared with Western populations except for Korean. Moreover, periodic limb movements during sleep (PLMS), a most frequent associated condition of RLS sharing common dopaminergic dysfunction with the disorder, could be less frequent in Asian RLS patients (this speculation came from the comparison of polysomnographic variables of the subject patients of clinical trials for the efficacy of pramipexole, a dopamine receptor agonist, on

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RLS between Japanese study and German study). If this is the case, clinical indication of dopaminergic agonist which has a dramatic effect for reducing PLMS, but possibly causing augmentation (paradoxical worsening of RLS symptom with the treatment) would be limited in Asian RLS patients. In addition, although REM sleep behavior disorder (RBD) has been known to develop frequently to alpha-synucleinopathies, follow-up observation by some Asian researchers have raised a possibility that speed of the development is slower in Asian patients with RBD than Caucasian patients.

Considering these possibilities of Asian specific nature of sleep habits and sleep disorders, I strongly feel the need

for the systematic comparison of these issues between Asian populations and populations in other area of the world, and this kind of studies would undoubtedly contribute not only to the betterment of social lives, but also to the better understanding of pathophysiology and establishment of Asian specific treatment strategy of sleep disorders. This year, I hope to see you in the meetings for Asian Sleep Research Society (Antalya, Turkey) and Asian Society of Sleep Medicine (Taipei, Taiwan), and wish to have a fruitful discussion about the preparation of the studies with you.