Acupuncture And The Treatment Of Insomnia
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ABSTRACT
Insomnia is commonly encountered in clinical practice; reportedly, with a prevalence of nearly 40% in certain populations. Although not commonly used for this condition, acupuncture may be helpful in the treatment of insomnia and has an excellent tolerability and safety profile. Increased awareness of the potential utility of acupuncture for the treatment of sleep impairment may result in improved patient care.

KEY WORDS
Sleep Disorders, Acupuncture, Insomnia

INTRODUCTION
Insomnia and sleep disturbances are commonly-encountered clinical problems in the outpatient setting. Insomnia may represent impaired sleep induction, the presence of sleep fragmentation, or non-restorative sleep.1 In a study of 218 patients in general outpatient facilities, nearly 40% complained of insomnia.2 Prevalence rates were higher among women and those 35-54 years old.2 Insomnia is commonly reported in patients older than 65 years. Approximately 13,000 such individuals older than 65 were surveyed by use of a clinical questionnaire,3 and more than a third of respondents reported insomnia.

PHARMACOLOGICAL TREATMENT
Sleep disruption complaints are often managed by the use of medications such as benzodiazepines and tricyclic antidepressants. Sedatives and oral hypnotics have high abuse potential and can be addicting. Tricyclic antidepressants may have intolerable adverse effects, including dry mouth, orthostatic hypotension, urinary retention, and cardiac conduction effects.

Many patients self-medicate. Melatonin is widely available and may be used in an attempt to normalize the sleep-wake cycle. However, there is a paucity of data on the long-term safety of melatonin. The pharmacodynamics and
pharmacokinetics are not completely understood, and medication interactions with melatonin are not known. Theorized potential adverse effects, based on animal data, for the long-term use of melatonin include inhibition of reproductive function and delay of puberty.4,5

**Other Modalities**
Non-pharmacological interventions may attempt to change sleep hygiene, habits, or expectations. One study used cognitive behavioral therapy to improve sleep in a randomized, placebo-controlled trial achieving a 55.6% response rate with such interventions.6

Additional non-pharmacological interventions include "light therapy," a commonly used modality for seasonal affective disorder and sleep disruption. In an analysis of 83 patients with seasonal affective disorder treated with bright light therapy, Terman and Terman noted significant adverse effects: nausea was reported in approximately 16% of patients, and headache and shakiness were reported in more than 8%.7

**ACUPUNCTURE TREATMENT**
Acupuncture may be uniquely beneficial in the treatment of this common clinical problem. In a study by Lee,8 all patients reported severe insomnia as a chief complaint; no patient slept more than 3-4 hours per night. Seven auricular points were used in this study: Heart, Kidney, Adrenal, Sub-Cortex, Endocrine, San Chiao, and Shen Men. In addition to these standard 7 auricular points, Sympathetic, Occiput, and Gallbladder auricular points were added if reactive or tender. Treatment was 3 times per week with a typical duration of 10-12 initial treatments, followed by a 2- to 4-week observational period; 15 of 16 patients had regimens of 15 treatments or fewer; 1 patient received 28 treatments total. Lee reported that lidocaine injections into exclusively auricular points improved symptoms of sleep disorder in 15 of 16 patients treated. Therapeutic effects were still present 3 months following the conclusion of treatment.8

In a study of outpatients in his department, Fischer9 reported similarly encouraging results: 100% of patients treated for insomnia obtained benefit without recurrences within 18 months of follow-up. Montakab and Langel10 diagnosed 40 patients using Chinese traditional diagnosis and performed polysomnographic analyses of true acupuncture vs control needled patients. Objective change was noted and found statistically significant in the true acupuncture group.

Acupuncture has been found to be an effective therapeutic tool in the treatment of HIV-infected patients with sleep disruption syndromes. Sleep architecture is disrupted in all stages of HIV disease. In a study by Phillips and Skelton,11 sleep quality significantly improved with acupuncture treatment after 5 weeks. Participants in the study were screened with a self-report questionnaire for sleep disruption; only those with severe to moderate disruption were eligible. Wrist actigraph analysis (which detects motion and sleep monitoring at home), current sleep quality index as a self-report score, and a visual analog scale of pain rating were used to assess patient responses to treatment. Acupuncture was performed 2 times weekly for 5 weeks. Acupuncture treatment was individualized based on Traditional Chinese Medicine (TCM), and was reassessed during treatment. Auricular and body points were used. Statistically significant pre- and post-treatment values were noted for amount of sleep, time awake, and sleep quality.

**DISCUSSION**
Acupuncture prescriptions for insomnia will vary with the clinical scenario and the style of acupuncture practiced by the physician. Each patient must be assessed for clinical syndromes contributing to sleep disturbance that may require specific medical or surgical interventions, e.g., hypercaffeinism, hyperthyroidism, pheochromocytoma. Some general suggestions are found in the medical literature for acupuncture approaches in the treatment of insomnia. One author suggests Shen Men (HT 7) and An Mien (extra point) for an acupuncture prescription.

Comparison studies of varying acupuncture styles for the treatment of insomnia represent an interesting research path yet to be vigorously pursued in peer-reviewed medical literature. Additionally, comparison studies of acupuncture and medication for the treatment of insomnia have not yet been published in peer-reviewed literature.

CONCLUSION
Acupuncture appears to be a useful treatment approach for a common clinical problem. In China, acupuncture is used most commonly in the treatment of pain disorders, similar to the use of acupuncture in North America. Acupuncture is also commonly used to treat insomnia in China, which is not true in North America. This is an area in patient care where acupuncture could be a beneficial addition to standard allopathic treatments. Clinicians should be aware that acupuncture is a potentially valuable adjunct in the treatment of this common clinical problem.

REFERENCES