

**The Acupuncture Treatment of Fatigue Secondary to Sleep Apnea**

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January 8, 2011

# THE ACUPUNCTURE TREATMENT OF FATIGUE SECONDARY TO APNEA

## **INTRODUCTION**

When a client presents with fatigue, many acupuncturists' pattern differentiation training begins to kick in and they start to root around for straightforward patterns like Spleen deficiency, Kidney deficiency and the like – often despite a clear lack of signs that this alone is the case, I have seen many patients treated with tonifying formulae and acupuncture point protocols who are referred to me once it becomes clear that they are not experiencing much of a positive response to such approaches. In my practice, I find that this is an example of a situation when looking at a problem from a combined East/West approach can be quite useful, particularly when there are hints that sleep apnea may be present.

By way of quick background, there are an enormous number of undiagnosed cases of sleep apnea in the United States, by some estimates 5.4 million cases have yet to be discovered.<sup>1,2</sup> Looking solely at the diagnosed cases there is a fairly high frequency within the US population with approximately 1 in 15 (6.62% or 18 million people) affected. This is important as many of our patients have already been diagnosed and either neglect to tell us or we, as practitioners, gloss over this fact during our initial intakes. *Therefore, I find that it almost always pays to consider the quality of sleep and the potential presence of apnea when a patient does not respond to a fatigue-specific treatment as one might expect.*

## **DESCRIPTION**

From a biomedical perspective, apnea is a serious sleep disorder that occurs when a person's breathing is interrupted during sleep. This may happen multiple times during the night, although the patient is rarely aware of it. The reason for this happening is a partial collapse in the airway during sleep which causes the brain to awaken the body to prevent potential asphyxia. This awakening may be only a few milliseconds long and, though the patient may awaken 5-30 times an hour, they are often not aware of it. Why does such an airway collapse

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<sup>1</sup> Lee W, Nagubadi S, Kryger MH, Mokhlesi B. Epidemiology of Obstructive Sleep Apnea: a Population-based Perspective. *Expert Rev Respir Med.* 2008 Jun 1; 2(3):349-364.

<sup>2</sup> Punjabi NM. The epidemiology of adult obstructive sleep apnea. *Proc Am Thorac Soc.* 2008 Feb 15;5(2):136-43.

occur? During sleep a person's muscle tone decreases. This is true throughout the body but, in the case of apnea, makes itself clinically known in the musculature surrounding the airways. In most people, this slight decrease in tone has no deleterious effect. However in someone who is overweight or has other issues which change the balance of their muscle tone, the relaxation in these muscles is enough to block off the ingress of air to the lungs.<sup>3</sup> There are three types of apnea: Central, Obstructive and Mixed Apneas. However from my clinical experience this western differentiation has no obvious bearing on effective treatment. This may be due to the complex of acupoints which I use and their ability to cover all bases by way of the Ren Channel.

### **WHAT I LOOK FOR THAT MIGHT SUGGEST APNEA**

Sleep apnea should be suspected if the patient is overweight, has a history of sinus problems, and/or has had a partner report frequent snoring. In conversations about apnea with other acupuncturists I often hear the mistaken notion that the patient must have subjective experience of poor sleep in order for the practitioner to contemplate such a Western diagnosis. Because apnea-related awakenings are often so incredibly brief the patient may believe that they are sleeping through the night and not report these awakenings.

Signs and symptoms a practitioner might look for include:

- ☞ Obesity and/or recent weight gain
- ☞ Sinus problems, and/or nasal obstruction due to a deviated septum or allergies
- ☞ Snoring (often reported by a partner)
- ☞ Use of alcohol or other muscle relaxants prior to bedtime
- ☞ Gender is male: men have a higher incidence of apnea than women
- ☞ Patient is 40 years of age, or older
- ☞ Patient has a large neck size (17 inches or greater in men and 16 inches or greater in women)

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<sup>3</sup>National Heart, Lung and Blood Institute, National Institutes of Health. NIH definition of Sleep Apnea. Available at: [http://www.nhlbi.nih.gov/health/dci/Diseases/SleepApnea/SleepApnea\\_Whats.html](http://www.nhlbi.nih.gov/health/dci/Diseases/SleepApnea/SleepApnea_Whats.html). Accessed Jan 8, 2010.

- ☞ Has large tonsils, a large tongue, or a small jaw bone
- ☞ Has a family history of sleep apnea
- ☞ Has gastroesophageal reflux (GERD)

### **FATIGUE WITHOUT CLEAR SIGNS OF OTHER DEFICIENCIES**

Although there may certainly be other deficiencies, especially Heart and Spleen or, for that matter, additional patterns which result from specific lifestyle issues, what will be key in my decision to use the protocol which I recommend here is the fatigue with a marked failure to respond to appropriate interventions for those patterns seen by the practitioner. Objective signs, such as pulse and tongue may appear to improve, but fatigue will remain the single most recalcitrant symptom.

### **LIST OF COMPLICATIONS RELATED TO APNEA**

Aside from the obvious satisfaction of treating an apnea patient and restoring their vitality there are many other benefits to providing a successful acupuncture treatment and remedying this problem. People with significant apnea are dramatically more likely to suffer from high blood pressure, stroke, heart failure, irregular heart beats and heart attacks, diabetes, depression, worsening of ADHD. Tangential to the direct physical impact of this disorder, untreated sleep apnea may be responsible for poor performance on the job or at school and has been cited as a factor in car crashes.<sup>45</sup>

### **LIST OF DIAGNOSTIC TESTS**

In Western medicine, a sleep test called polysomnography is usually done to diagnose sleep apnea. There are two kinds of polysomnograms. An overnight polysomnography test involves monitoring brain waves, muscle tension, eye movement, respiration, oxygen level in the blood and audio monitoring (for snoring, gasping, etc.). The second kind of polysomnography test is a home monitoring test. In both cases a technician attaches electrodes to the patient and records various aspects of sleep.

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<sup>4</sup> Omachi TA, Claman DM, Blanc PD, Eisner MD. Obstructive sleep apnea: a risk factor for work disability. *Sleep*. 2009 Jun 1;32(6):791-8.

<sup>5</sup> Antonopoulos CN, Sergeantanis TN, Daskalopoulou SS, Petridou ET. Nasal continuous positive airway pressure (nCPAP) treatment for obstructive sleep apnea, road traffic accidents and driving simulator performance: A meta-analysis. *Sleep Med Rev*. Dec 30 2010.

## **DESCRIPTION OF APNEA - FROM A TCM PERSPECTIVE**

Blue Poppy, always an excellent resource, has several research reports from China translated which list several different potential etiologies for the development, progression and tangential damage caused by apnea.

In one report, the author views snoring and apnea as potentially caused by one of three patterns. The first being an external contraction of wind warm heat evils, the second a Liver-Lung fire excess with recurrent contraction of wind-cold; and the third an internal damage due to medications, diet, or taxation fatigue.<sup>6</sup> In each case there is a resultant interference in the qi mechanism through the channels and tissues of the throat.

In another report, Flaws translates and abstracts a research report from *New Chinese Medicine*, which attempts to use diagnostic signs across the spectrum of apnea sufferers to establish a TCM framework for understanding and treating the disorder. The report ends by summarizing their findings:

“According to the Chinese authors, in the early stage of this condition (i.e., the first 10 years), the main pattern is phlegm dampness blockage and obstruction. Therefore, the clear yang is not upborne and turbid yin is not downborne. If this condition then endures for a long time, eventually there is blood stasis and qi vacuity as well [ . . . ] Thus it is Drs. Su and Li’s advice that patients in the early stage of OSAHS should be treated based on the principles of dispelling phlegm, transforming stasis, fortifying the spleen, and supplementing the qi. To this, I would add coursing the liver and rectifying the qi. This is because of the interrelationship between the liver and spleen and the qi and blood/qi and body fluids. In individual patients, it may also be necessary to clear depressive, phlegm, or damp heat and to nourish the blood.”<sup>7</sup>

In both of these research reports, regardless of the energetic pattern, there is a resultant interference in the qi mechanism through the channels and tissues of the throat. Ultimately these reports, other as well as my own clinical experience, led me to the development of a successful protocol for treating sleep apnea.

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<sup>6</sup> Blue Poppy Press. Flaws, B. Research Report #296: Sleep Apnea and Chinese Medicine. Available at: [http://bluepoppy.com/cfwebstore/index.cfm?fuseaction=feature.display&feature\\_ID=528](http://bluepoppy.com/cfwebstore/index.cfm?fuseaction=feature.display&feature_ID=528). Accessed on Jan 8, 2011.

<sup>7</sup> Blue Poppy Press. Flaws, B. (translated and abstrated by). Analysis of Patterns in Obstructive Sleep Apnea Hypopnea Syndrome (OSAHS). Available at [http://bluepoppy.com/cfwebstore/index.cfm?fuseaction=feature.display&feature\\_ID=995](http://bluepoppy.com/cfwebstore/index.cfm?fuseaction=feature.display&feature_ID=995). Accessed on Jan 8, 2011.

## **TREATMENT PROTOCOL AND DISCUSSION**

When treating a patient with diagnosed or suspected apnea, I have a standard approach. While each patient receives an individualized treatment plan based on their TCM interpreted signs and symptoms, this protocol forms the underpinning of the therapeutic thrust.

Treat the Ren Mai via Master/Coupled points: LU7/KI6. Next use local points along its trajectory: CV21, CV22, CV23, as well as the adjacent points DU16 and ST9.

Any additional points may be added once this constellation of acupoints is in place. The best results are obtained if the patient can be seen twice a week for the first month. By the end of 8 treatments most patients are reporting dramatic improvements in energy. If the client had other more obvious signs of apnea, including the awareness of frequent awakening, mood alterations, or a partner's report of snoring, these will often show signs of positive change. Once the month mark has been reached we diminish the frequency of treatment to once a week for another month, and reassess the patient's subjective sense of their energy relative to their remembered ideal as well as looking for TCM signs of change in the client's complexion, voice, pulse and tongue. Based on this, the treatment may either continue for another month of weekly treatments or be spaced out to every other week before reassessing again. The patient is discharged from treatment once their energy level is at a normal level for a consistent two weeks.

Results are consistently satisfying and sustained based on 57 cases, periodically followed over the last 12 years. However, I have observed that the patient may backslide and begin to experience symptoms again if: further weight gain occurs; if there is a loss of muscle tone for other reasons including disease, hospitalization with prolonged periods of bed rest; or pharmaceutical interventions which have muscle relaxant properties have been begun.

The theoretical underpinnings are clear. As clearly described in Deadman<sup>8</sup>, the Ren Mai traverses the center front of the body and "ascends along the midline of the abdomen, chest, throat and jaw, terminating at CV24." The actions of points on the Ren Mai include: "Treating disorders of their local area," thus the tracheal region, in the case of these points.

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<sup>8</sup> Deadman P, Baker K, Mazin, AK. *The Manual of Acupuncture*. 1st Edition. Hove, England: Journal of Chinese Medicine. 2001:495-6

The Ren Mai has an interior branch which winds around the mouth and connects with the DU Channel which partially explains the utility of GV16 in acting as a useful adjacent point. GV16 has many fascinating indications, most relevant of which are its effect upon breathing function and wind damage. However, there is a secondary emotional function which may be useful in our patients with apnea, Mania, . . . desire to commit suicide and fear with fright palpitations.<sup>8</sup>

CV21 is indicated for rebellious qi; wheezing; dyspnoea with inability to speak, all of which are species of qi mechanism dysfunction. Deadman points out that this point is particularly well used for its strong descending action upon the Lung qi.

CV22 is also indicated for rebellious qi, particular to the channel aspects of Lung function and respiratory function. Deadman, as well as most other authors, point out that this point is particularly useful for its effects upon the throat, regardless of the underlying pattern.

CV23, likewise, effects the qi mechanism locally. While it is most commonly thought of as a point for windstroke patterns or salivary insufficiency, I find it to be very useful as an adjacent point to strengthen this protocol.

ST9 functions as an adjacent point and has the property of restoring qi flow between the body and the head, which is particularly useful for this type of dysfunction. As with the other points, ST9 manages the qi mechanism and benefits the throat and tracheal region.

## **CONCLUSION**

Having seen many patients over the years who have failed to respond solely to pattern-based TCM interventions for fatigue, I have sought to use additional information from the Western medical way of viewing the body in order to use the tools at our disposal in a different way. Given a variety of social and physical changes in the American culture (obesity, increase in life expectancy, sedentary lifestyle), and the epidemiological prevalence of sleep apnea in the nation, it seemed to be a logical avenue to explore. This approach has borne significant clinical fruit in my practice.