

Treatment of Anxiety and Insomnia with Acupuncture and Chinese Herbs: A Case Report

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Abstract

Anxiety and insomnia are common symptoms of perimenopause and affect many women, reducing their quality of life. Acupuncture is often overlooked as a safe and effective therapy for this transition. A 52 year-old female with chronic anxiety and insomnia had worsening of both symptoms when she went through perimenopause. She received 16 acupuncture treatments based on a Chinese medicine diagnose of Liver qi stagnation and Kidney yin and yang deficiency. After nine acupuncture treatments and prescription of Chinese herbal medicine, her anxiety severity was reduced by 60 per cent, she was sleeping twice the number of hours per night and her energy levels increased. This case report shows the effectiveness of acupuncture and Chinese herbs in the treatment of anxiety and insomnia.

Introduction

Perimenopause is defined as the transition phase between the beginning of irregular menstrual cycles and the last menstrual cycle. The perimenopausal phase in most women lasts about four years and the average age a woman starts perimenopause is 47 years old.¹ During this phase, there is fluctuation of hormones including decreased production of oestrogen, progesterone and testosterone, and increased production of follicle stimulating hormone (FSH).¹ Due to the hormonal changes, women often experience symptoms of menstrual irregularity, decreased fertility, hot flashes, night sweats, sleep disturbance and mood disorders such as anxiety and depression.² Twelve months after her last menstrual period the woman enters menopause.

Anxiety disorders are the most common mental disorder in the United States, affecting 18.1 per cent of Americans aged 18 and older, and being more prevalent in women.³ A common treatment option for anxiety disorders is cognitive-behavioural therapy (CBT), a therapy that identifies and changes the way patients perceive and respond to situations and stressors. Although CBT can be very effective in treating anxiety in adults, it can take between 12 to 16 weeks to see results according to the Anxiety and Depression Association of America.⁴ Pharmaceutical drug therapies for anxiety include selective serotonin reuptake inhibitors (SSRIs), serotonin-norepinephrine reuptake inhibitors (SNRIs), tricyclic antidepressants

and benzodiazepines.⁵ However, these drugs can cause adverse effects such as headache, insomnia, gastrointestinal upset, sexual dysfunction and blurred vision, amongst others.⁶ Benzodiazepines are meant for short term use but are frequently mis-prescribed long-term, resulting in dependence. Other natural methods consist of botanicals, meditation, yoga and acupuncture; common botanical anxiolytics used are lavender, St. John's wort, kava kava, and many more.^{6,7}

Sleep disturbance affects 35 to 40 per cent of the U.S. adult population yearly.⁸ In 1995, 1.97 billion dollars were spent on medications and 11.96 billion on health care services, totalling to 13.9 billion dollars on insomnia.⁹ Approximately 40 per cent of people who suffer from insomnia have a comorbid psychiatric disorder, most commonly depression and anxiety.⁹ The World Health Organisation published a report in 2003 acknowledging that acupuncture has a therapeutic effect on numerous conditions, including insomnia.¹⁰ A small study showed nocturnal increase of melatonin secretion after five weeks of acupuncture treatments.¹¹ Melatonin is a hormone secreted by the pineal gland and it regulates the body's circadian rhythm or 'internal clock'. Melatonin is often supplemented in people that suffer insomnia.

Presenting condition

A 52 year-old female presented in clinic with chief complaints of anxiety and insomnia. She had a long history of anxiety and insomnia but they had

worsened in the past six or seven years when she went through perimenopause and got laid off from work. She had stopped menstruating 18 months ago. She also reported hot flashes and night sweats but those were not her primary concern. She reported anxiety at a level of ten on a scale of zero (no anxiety) to ten (high anxiety); she also reported concomitant symptoms of chest tightness, shortness of breath and abdominal pain during episodes of anxiety. She felt anxious about various things in life, such as getting her duties done at work, driving and the health of family and friends. She only slept around three hours a night and had difficulty both falling and staying asleep. She did not wake up refreshed and was lethargic, with an energy level of three out of ten (ten being high energy). She had tried various treatments for her anxiety and insomnia, including dietary changes, nutritional supplements, botanicals, hormone replacement therapy, cannabis and counselling, with minimal relief. Despite the hot flashes, her overall subjective temperature was cold. Her tongue was pink, with a white coating and slightly engorged sublingual vessels. Her left pulse was slightly slippery and deep in the Kidney position, and her right pulse was wiry and slightly slippery.

Intervention

The patient's traditional Chinese medicine (TCM) diagnoses were Liver qi stagnation and Kidney yin and yang deficiency, with more yin deficiency. When Liver qi is not flowing freely in the body, it can manifest as different emotions such as depression, anger, worry and, as in this case, anxiety. The TCM concept of yin and yang mirrors the biomedical concepts of the parasympathetic

(relaxation) and sympathetic (fight or flight) states. In this case, because Kidney yin was more deficient, the patient appeared to have more Kidney yang, meaning her body was in a more sympathetic state which was keeping her up at night causing the insomnia.

The treatment principle was to move Liver qi and tonify Kidney yin and yang. Acupuncture points were selected based on her TCM diagnosis and symptoms (see Table 1). Acupuncture needles were inserted and retained for 30 minutes with no stimulation. Chinese herbal medicine teapills, *Xiao Yao Wan* (Free and Easy Wanderer) and *An Shui Wan* (Peaceful Sleep Pill), were also prescribed to relieve her anxiety and promote sleep (Table 2). The patient received 16 acupuncture treatments over the course of 24 weeks.

Outcomes

One week after initial treatment, the patient reported her anxiety level as being unchanged, although she felt better able to handle stress. After four consecutive weekly acupuncture treatments she reported a reduction of anxiety from ten to six out of ten. She continued to see improvement in her anxiety and, after nine consecutive treatments, she reported a further decrease in its severity to four out of ten (Figure 1), a 60 per cent overall improvement. The patient was very satisfied with the treatment progression. She was then unable to receive acupuncture during the winter holidays due to clinic closure.

The patient reported improvement in her insomnia after the first acupuncture treatment, with her sleep increasing to five hours a night with better quality. She was able to fall asleep faster and it took less time to fall back asleep if she

Acupuncture points	TCM actions	Biomedical indications
Baihui 百會 DU-20	Calm the shen	Insomnia, headache, anxiety
Sishencong 四神聰 M-HN-1	Calm the shen	Insomnia, headache, anxiety
Yintang 印堂 M-HN-3	Calm the shen	Mental and physical relaxation, insomnia, stress, anxiety
Anmian 安眠 M-HN-54	Calms the shen, calms the Liver	Insomnia
Shenmen 神門 HE-7	Calms the shen, tonifies the Heart	Insomnia, anxiety, cardiac pain
Shanzhong 膻中 REN-17	Treat qi stagnation	Anxiety
Zhong fu 中府 LU-1	Open the chest	Fullness in the chest, shortness of breath, grief
Hegu 合谷 LI-4	Promotes qi circulation, restores yang	Anxiety, headache (with Taichong LIV-3)
Taichong 太沖 LIV-3	Regulate Liver qi	Anxiety, headache (with Hegu LI-4)
Yanglingquan 陽陵泉 GB-34	Regulates Liver qi	Anxiety, headache
Neiguan 內關 P-6	Opens the chest, calm the shen, move Liver qi	Insomnia, anxiety, chest tightness
Yinbai 隱白 SP-1	Unbinds the chest, calm the shen	Insomnia, anxiety
Sanyinjiao 三陰交 SP-6	Harmonises the Liver, tonifies the Kidney, nourishes yin	Insomnia, abdominal pain
Zusanli 足三里 ST-36	Tonifies qi, nourishes yin, calms the shen, restores yang	Insomnia, abdominal pain
Taixi 太谿 KID-3	Strengthens Kidney yin and yang	Insomnia, anxiety, shortness of breath
Zhaohai 照海 KID-6	Tonifies Kidney yin, benefits uterus	Hot flashes, night sweat

Table 1: Acupuncture points used with indications

Formula name	Actions	Indications
Free and Easy Wanderer (Xiao Yao Wan) Ingredients: Paeonia lactiflora root-wine-fried, Poria cocos sclerotium, Atractylodes macrocephala rhizome, Paeonia suffruticosa root-bark, Gardenia jasminoides fruit, Bupleurum chinense root, Angelica sinensis root, Zingiber officinale rhizome-fresh, Glycyrrhiza uralensis root, Mentha haplocalyx herb (Plum Flower brand) Dose: 10 teapills 3x a day	Softens the Liver, regulates qi, nourishes blood, strengthens the Spleen	Anxiety, depression
An Shui Wan Ingredients: Reynoutria multiflora stem, Triticum aestivum fruit, Polygala tenuifolia root, Rehmannia glutinosa root-prep, Platycladus orientalis seed, Ziziphus jujube seed, Citrus reticulata peel, Poria cocos sclerotium, Angelica sinensis root, Dioscorea oppositifolia rhizome, Codonopsis pilosula root, Scrophularia ningpoensis root, Ophiopogon japonicus tuber, Platycodon grandiflorum root, Atractylodes macrocephala rhizome, Acorus tatarinowii rhizome, Glycyrrhiza uralensis root, Schisandra chinensis fruit (Plum Flower brand) Dose: 10 teapills 3x a day	Calms the shen, nourishes the Heart, tonifies blood, nourishes yin, strengthens qi	Insomnia, anxiety

Table 2: Chinese herbal medicine teapills ingredients and modes of actions

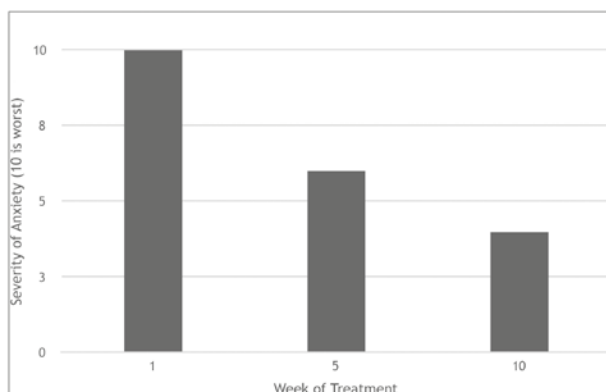


Figure 1: Anxiety severity

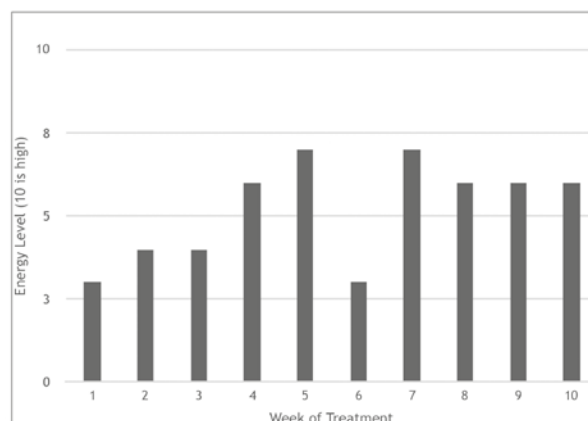


Figure 3: Energy level

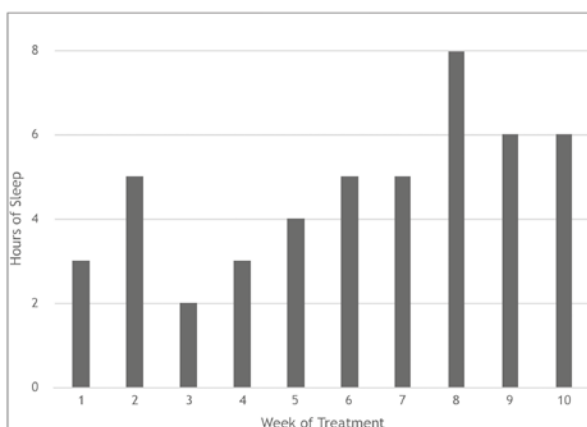


Figure 2: Insomnia severity

were to wake up in the middle of the night. The Chinese herbal medicine blend *An Mien Pian* (Peaceful Sleep Pill) was prescribed in her second visit. She had less sleep after her second treatment and no significant improvement for two weeks after taking this formula, so a different blend, *An Shui Wan* was prescribed. After nine acupuncture treatments and taking *An Shui Wan*, the patient slept double the number of hours, reaching six hours a night (Figure 2). As a consequence of her improved sleeping pattern, she was no longer lethargic and her energy level also improved (Figure 3), up to seven out of ten after four

treatments. Her energy dropped down back to three out of ten during the sixth week due to increased demands at work, but it improved to and remained at six out of ten after a few more weeks of acupuncture treatment.

Discussion

According to The American Congress of Obstetricians and Gynecologist (ACOG), roughly 6,000 women enter menopause in the U.S. each day. As a woman undergoes this transition, she may experience symptoms, most commonly anxiety and insomnia, that impact her quality of life. There are many interventions available to ameliorate symptoms, including the TCM approach of acupuncture and Chinese herbs. Acupuncture has been shown to have positive effects on both anxiety and insomnia.^{12, 13, 14}

In this case, the patient had a long history of anxiety and insomnia, which were exacerbated when she transitioned through menopause. She tried various treatments with no resolution of her condition. After one acupuncture treatment she noticed immediate improvement in her ability to handle stress. After nine treatments, her anxiety severity had reduced by 60 per cent. Her sleep increased from three hours to six hours a night, and she reported better quality of sleep. She could fall asleep faster and even if she woke up at night, it took her less time to fall back asleep. She was waking refreshed in the morning

and her energy level increased from three to six out of ten. This case report highlights the efficacy of acupuncture and Chinese herbs for menopausal women with anxiety and insomnia.

Dr. Melanie Hoang¹ is a licensed naturopathic physician in the state of Arizona. She received her medical degree from Southwest College of Naturopathic Medicine (SCNM) in 2016 and finished a one year residency in general medicine at SCNM medical centre. She primarily focuses on family medicine with special interests in gastroenterology, cardiology and women's health. She grew up in a Chinese household and often approaches conditions from a traditional Chinese medicine perspective. Other than nutritional and lifestyle counselling she utilises acupuncture, IV therapy, hydrotherapy, botanical medicine and others depending on the patient's individual needs. Prior to SCNM, she received her Bachelor of Science in physiology from the University of Arizona.

Dr. Yong Deng¹ is an international expert in Chinese medicine and acupuncture. He earned his medical degree from and is former faculty of Chengdu University of Traditional Chinese Medicine in China. He has been teaching and practising at medical schools in China and the United States for more than 30 years with a focus on traditional Chinese medicine for a wide range of diseases and conditions. Due to his extensive knowledge, Dr. Deng was invited to Southwest College of Naturopathic Medicine (SCNM) in 1996 and currently serves as the chair and professor within the Department of Acupuncture and Oriental Medicine. Dr. Deng is a licensed acupuncturist in Arizona and works with MDs in hospitals and several fertility treatment centres within the Phoenix area. He is a member of the State of Arizona Acupuncture Board of Examiners and has published over 30 papers and several books including the *Encyclopedia of Chinese and U.S. Patent Herbal Medicines*.

Dr. Yasmin Hilmi¹ received her doctoral degree at Michigan State University, where she focused on the mechanism and regulation of energy transduction in mitochondria and bacteria, and kinetics, mechanics, and protein chemistry of electron and proton transfer in cytochrome c oxidase. She previously taught biochemistry, genetics and molecular biology at Khartoum College of Medical Sciences for 12 years. Dr. Hilmi has performed research on cytotoxicity, antioxidant activity, enzymatic inhibition and elemental composition of some Sudanese medicinal plants used in traditional medicine, with special emphasis on the treatment of diabetes and cancer.

Dr. Jeffrey Langland^{1,2} received his doctorate degree from Arizona State University in the area of virology in December 1990. His area of interest at that time and still today is investigating and understanding the complex cellular defenses against microorganisms. After graduating from Arizona State, he was a post-doctoral fellow at UC Davis studying oncolytic viruses, followed by a post-doctoral position at the University of Wyoming comparing similarities between plant and human defenses against viruses. In 1995, he returned to Arizona State University (ASU) as a Research Assistant Professor. In this capacity he has instructed several courses including General Virology and The Biology of AIDS. In August 2007, Dr. Langland became the first joint faculty member at SCNM, maintaining his position at ASU and becoming the instructor

for Medical Microbiology and Concepts in Research courses. Dr. Langland is chair of the Research Department at SCNM, bringing new insight and a fresh approach to research for the students and to the field of naturopathic medicine.

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