

## 18. Symptoms and Signs

### Reference

Yamazaki T, Fukuda F, Ishizaki N, et al. The effect of acupuncture on chronic fatigue in healthy subjects. *Nihon Mibyou Shisutemu Gakkai Zasshi (The Journal of Japan Mibyou System Association)* 2009; 15(2): 186–96 (in Japanese with English abstract). Ichushi Web ID: 2010161854

#### 1. Objectives

To evaluate the effectiveness of acupuncture for chronic fatigue (*mibyou* [未病]; fatigue with no medical explanation).

#### 2. Design

Randomized controlled trial (RCT).

#### 3. Setting

Not described.

#### 4. Participants

Nineteen workers from a firm in northern Kyoto prefecture who noticed persistent fatigue over the previous 6 months but no other related medical abnormality (age range, 25–65; mean age, 50.4 and 46.2 years, respectively).

#### 5. Intervention

Arm 1: Acupuncture group. History taking (interview) and acupuncture treatment for fatigue twice a week for a total of 16 times (eight weeks). The basic acupuncture points were the LI4 (合谷), ST36 (足三里), KI3 (太谿), and BL23 (腎俞), and additional acupuncture points were selected for use in treatment according to the complaint location. Stainless steel needles (0.14×30 mm; Seirin Co., Ltd.) were used (n=9).

Arm 2: Control group. Interview conducted once a week (n=10).

One participant dropped out of Arm 2.

#### 6. Main outcome measures

Subjective measures

Subjective physical fatigue and mental fatigue (visual analogue scale, VAS). General Health Questionnaire-12 (GHQ-12), and accumulated fatigue (Self-Diagnostic Checklists for Accumulated Fatigue, Ministry of Health, Labour, and Welfare).

Objective measures

Blood chemistry (ACTH, dopamine, adrenalin, noradrenalin, and cortisol), sleep efficiency scores (measured by actigraphy), and level of oxidative stress (8-hydroxy-2-deoxyguanosine [8-OHdG]) and potential antioxidant [PAO]).

#### 7. Main results

All subjective measures improved significantly in Arm 1 compared to Arm 2 ( $P=0.001-0.034$ ). Differences in objective measures were not significant either before and after interventions, or between groups.

#### 8. Conclusions

Acupuncture alleviates chronic fatigue with no medical explanation (*mibyo*).

#### 9. From acupuncture an

#### 10. d moxibustion medicine perspective

Fatigue is treated as a deficiency of the qi (気虚, *kikyo*) and blood (血虚, *kekkyo*). LI4 (合谷), ST36 (足三里), KI3 (太谿), and BL23 (腎俞) are considered the basic acupuncture points for treatment of those deficiencies.

#### 11. Safety assessment in the article

No adverse event was developed.

#### 12. Abstractor's comments

This study treats physical and mental fatigue as *mibyou*, and uses multiple measures to examine the effects of acupuncture in detail on this pathological condition. The authors properly present the baseline information for each group, the flowchart on allocation, and adverse event information. There were few participants (9 and 10 in the respective groups), and there was no follow up at the end of the 8-week study period. These are areas needing improvement. Focusing attention on *mibyou* is very significant for acupuncture and moxibustion. Expectations are great for future development in this area.

#### 13. Abstractor and date

Haruki J, 9 September 2011.