Acupuncture Outperforms Drug For Insomnia Relief

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Acupuncture outperforms a type of drug therapy for the treatment of chronic insomnia and associated poor memory. Hangzhou Red Cross Hospital researchers compared the effectiveness of acupuncture with estazolam drug therapy for the treatment of chronic insomnia disorders. Acupuncture outperformed drug therapy for the improvement of sleep quality and episodic memory function. [1] Episodic memory is a category of memory that retrieves information about a person's recent or past events and experiences.

Insomnia is a common sleep disorder. Buysse et al. found that one-third of adults have insomnia symptoms, with 10–15% of individuals suffering from daytime functional impairment (decreased attention, memory, alertness, executive function, and reaction speed) and 6–10% meeting the diagnostic criteria for insomnia. [2] Estazolam is a benzodiazepine receptor agonist used to treat insomnia. While effective, a downside is that residual daytime sedation can affect a patient's cognitive function, including concentration, memory, and alertness. Sateia el al. reported that patients receiving estazolam experienced reduced learning ability, memory and had higher risks of traffic accidents. [3]

Researchers (Feng et al.) used the following study design. A total of 140 patients were treated and evaluated in this study. Patients were diagnosed with chronic insomnia disorder. They were randomly divided into three groups: true acupuncture group (46 cases, 1 case dropped off), sham acupuncture group (47 cases, 2 cases dropped off),

medication group (47 cases, 2 cases dropped off). For the control group patients, 1–2 mg of estazolam was administered daily for 4 consecutive weeks. The true acupuncture group received acupuncture on meridian points, while the sham acupuncture group received acupuncture at sham points away from the meridian lines.

The statistical breakdown for each randomized group was as follows. The true acupuncture group was comprised of 15 males and 30 females. The average age in the true acupuncture group was 46 ±11 years. The average course of disease was 13.9 ±6.0 months. The sham acupuncture group was comprised of 16 males and 29 females. The average age in the true acupuncture group was 47 ±10 years. The average course of disease was 14.3 ±6.2 months. The medication group was comprised of 15 males and 30 females. The average age in the true acupuncture group was 47 ±10 years. The average course of disease was 14.1 ±6.1 months. There were no significant statistical differences in gender, age, and course of disease relevant to patient outcome measures for patients initially admitted to the study.

True Acupuncture Procedure

The treatment group patients received one session of acupuncture per day, with 5 consecutive days marking the one treatment course data point. A total of 4 courses were administered with 2 days of break time between courses. The acupoints used for the treatment group included the following:

- GV20 (Baihui)

- HT7 (Shenmen)

- SP6 (Sanyinjiao)

- KI6 (Zhaohai)

- BL62 (Shenmai)

Treatment commenced with patients in a supine position. After disinfection of the acupoint sites, a 0.30 mm x 40 mm disposable filiform needle was inserted into each acupoint with a high needle entry speed. For Baihui, the needle was inserted horizontally and posteriorly for 10–20 mm. For Shenmen, the needle was inserted perpendicularly for 5–10 mm. For Sanyinjiao, the needle was inserted perpendicularly for 20–25 mm. For Zhaohai and Shenmai, the needle was inserted perpendicularly for 10–20 mm.

Once a deqi sensation was obtained, Baihui, Shenmen, and Sanyinjiao were applied with the mild reinforcement and attenuation (Ping Bu Ping Xie) manipulation technique. Zhaohai was applied with the reinforcement technique. Shenmai was applied with the attenuation technique. Treatment was conducted by an acupuncturist with clinical experience of more than 5 years. Each session lasted for 30 minutes.

All patients underwent assessments before and after treatments. First, the insomnia severity was measured by the insomnia severity index (ISI). Second, episodic memory was calculated by the auditory verbal memory test (AVMT). Third, the sleep structure was recorded using the following indices: total sleep time (TST), sleep onset latency (SOL), wake after sleep onset (WASO), sleep efficiency (SE), and the percentage of non-rapid eye movement phase 1, 2, and 3 (N1, N2, N3), and rapid eye movement time (REM) in TST.

After treatment, ISI scores in the true acupuncture and the medication groups became lower and the improvement in the true acupuncture group was more significant than that in the medication group. AVMT results in both the true acupuncture group and the medication group were higher, with the true acupuncture group displaying more significant improvements. Regarding sleep structure indices, SOL, WASO, and N1% were all reduced and TST, SE, N3%, and REM% were all increased in the true acupuncture group and the medication group. N2% in the true acupuncture group was reduced. N1% and N2% in the meridian-point group were lower than those in the medication group, while N3% and REM% were higher than those in the medication group.

The results indicate that acupuncture improves immediate memory, short-delayed recall, long-delayed recall, and delayed recognition as shown by AVMT results compared with estazolam. In addition, acupuncture adjusts the sleep structure and improves memory function by increasing deep and REM sleep states and shortening light sleep.

References:
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