

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (8) – Acupuncture in the Area of Otorhinolaryngology

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In this section we will discuss, Otolaryngology diseases (ears, nose and throat), especially those suited to treatment by acupuncture and moxibustion therapy such as tinnitus, dizziness (vertigo) and sudden deafness.

Conditions of the eyes, ears and throat, especially with respect to Acupuncture and Moxibustion Treatment, are considered imbalances within the Fang Fu system of organs as Kidney, Liver type diseases. Further, external influences of wind dampness and phlegm fire are thought to have a strong connection to these external orifices, so treatment of these conditions must focus on these pathogenic processes.

In 1996, the WHO published a list of 49 diseases effectively treated with acupuncture. Diseases of the ear, nose and throat included tinnitus, hearing loss and Meniere disease. Indications on this list are not based on evidence obtained through rigorous clinical trials and, dominated by subjective symptoms, such as tinnitus and vertigo, so making an objective evaluation based on the degree of symptoms very difficult. Because these conditions are not dealt with effectively by modern medical treatment provided by medical institutions, patients with these symptoms tend to seek acupuncture treatment. For these reasons, Otolaryngology specialty hospitals in Japan may often offer acupuncture treatment rooms.

1. Present Status of Foreign Clinical Research

a) Tinnitus

Using Pub Med, we limited our keyword search to [Acupuncture] [hearing disorder] and found 91 references, 8 of which were RCTs. Of those, 4 reports were published after 2000, 2 reports were from the

1990's and the remaining reports were prior to that. Most recently (2010), Wang K, Bugge J et al. of Denmark published single-blinded RCTs "A randomized, placebo-controlled trial of manual and electrical acupuncture for the treatment of tinnitus". Subjects were 50 patients with tinnitus were divided into three trial groups, 1) an electro-acupuncture group, 2) manual acupuncture group, and 3) a non-acupuncture treatment group. Groups 1 and 2 received acupuncture at intervals of 6 times a week for one month, after which they completed a survey concerning the frequency, volume and quality of their tinnitus and remarked about their subjective evaluation of the treatment and their progress. Results of these post-treatment subjective evaluations showed that, compared to the non-treatment baseline levels, manual acupuncture produced significant improvements and compared to manual stimulation, electro-acupuncture produced relatively more significant improvements. Frequency and volume of tinnitus was significantly reduced in the electro-acupuncture group and it was concluded that, as for tinnitus, electro-acupuncture was especially effective.

b) Vertigo

Performing a Pub Med search using key words [Acupuncture], [Dizziness], [Vertigo], 23 reports were collected, 3 of which were RCTs.

Aigner N et al. published "Adjuvant laser acupuncture in the treatment of whiplash injuries: a prospective, randomized placebo – controlled trial" for vertigo resulting from whiplash injuries (45 subjects). The subjects were divided into 2 groups, 1) pharmaceutical treatment combined with laser acupuncture and 2) laser acupuncture with no pharmaceuticals as the placebo test group. Comparing results from these two groups revealed that both groups improved but there was no significant difference between the results.

Heikkilä H, et al., published "Effects of acupuncture, cervical manipulation and NSAID therapy on dizziness and impaired head

repositioning of suspected cervical origin: a pilot study". They discussed vertigo and its relationship to disorders of the neck. They performed trials using acupuncture, cervical manipulation and non-steroidal anti-inflammatory drugs to confirm efficacy. Cervical manipulation was found to be the most effective method for reducing the amount of time patients suffered dizziness and vertigo. However, according to post treatment VAS scores, acupuncture was found to be very effective for relieving the various pains experienced by these patients.

c) Sudden Deafness

Using a Pub Med search including the key words [Acupuncture] and [sudden deafness], we found 4 reports, none of which were RCTs. Yin CS et al. was the primary researcher for these reports. Requirements for entrance into the study were that the symptom had continued for more than 3 weeks and that Western treatments had failed to correct the condition. Seventeen subjects with obstinate deafness joined the study. A specific type of sham acupuncture was used (舎岩鍼法) as the control and manual acupuncture was used as the treatment. After 70.4 days, improvement rates were measured at 47.1% (8 of the initial 17 had improved hearing).

2. Present Status of Clinical Studies in Japan (from 2001 to 2012)

a) Tinnitus

Using an online search engine, jamas.or.jp, we used [Acupuncture], [Moxibustion] and [Tinnitus] as the keywords. Retrieving 57 reports, we are reviewing 32 of those here, although none of these were RCTs. Muranaka et al. published "Efficacy of Acupuncture and Moxibustion for Patulous Eustachian Tube symptoms" having recruited a 43 year old male subject. Needling was performed in the area of the Trigeminal nerve using acu-points at the back of the head on the neck. He was treated once a week for 25 weeks and the results of his treatments were reported as follows. ANRS (Numerical Rating Scale) was used to evaluate his progress. Compared

to initial evaluation scores, he experienced 50% improvement in his Patulous Eustachian Tube symptoms and this improvement was maintained following the treatment period. Wu et al. published "Acupuncture Treatment for Labyrinthine Tinnitus". Having recruited 65 subjects, they were screened and divided into deficiency, excessive and intermediate types. All subjects received acupuncture treatment. Before and after the treatments subjects were asked to evaluate their subjective scores for [tinnitus expression] and [tinnitus loudness]. Analyzing the data from 65 subjects showed that, compared to the deficient and intermediate types, the excessive type subjects showed the greatest reaction to acupuncture treatments.

b) Vertigo

We performed a web search using jamas.or.jp and including the keywords [Acupuncture], [Moxibustion] and [Vertigo]. We retrieved 98 reports, 49 of which were case studies and 43 included research commentary. Kadokura et al., recruited 7 subjects with peripheral (??) vertigo who had not had experienced relief with Western Medical Treatments (1 male, 6 females). Acupuncture and moxibustion treatments involved retention needling and comfortably warm moxa that did not leave a scar or blistering. Treatment was continued for between 6-15 months. A QOL questionnaire was collected to evaluate the effectiveness of the treatments: 1 subject reported complete recovery, 5 reported a reduction in symptoms and 1 reported no changes for an overall improvement rate of 85%. Further, Sakuraba et al. reported improvement in vertigo, an accompanying symptom experienced by patients receiving hemodialysis. Specifically, 18 hemodialysis patients were divided into Group A (10 hemodialysis patients (2 males and 8 females, average age 62.4) and Group B (5 males and 3 females, average age 67.5). The groups were treated with acupuncture, alternately for 12-week sessions (cross-over treatment method). Acu-points were selected using

an M-test and embedded needles were then applied. Following the treatments, group A's VAS scores for itchiness decreased significantly from 52.2 to 18.5. Further, slight decreases were reported for general stiffness, irritability, a sense of dull heaviness, and vertigo.

c) Sudden Deafness

Using an online search engine, jamas.or.jp, including the keywords, [acupuncture], [moxibustion] and [sudden deafness] we retrieved 23 reports, one of which was original research, 15 were case reviews and 7 were research commentaries. Additionally, we found no RCTs. Sudden deafness has been studied by Yamamoto and Takenouchi who researched classical texts. Since 1981, they followed 15 patients for 6 years, providing systematic whole body acupuncture treatments, using particularly points around the ears and auricular acupuncture. Four of the subject (26.7%) reported their treatments were effective.

3. Perspectives and views for the future of acupuncture and moxibustion therapy of Otolaryngology

As noted earlier, modern medical treatment for patients with Otolaryngology diseases do not necessarily get positive results. In many cases, even after a successful acupuncture treatment, because these types of symptoms are often based on subjective observations, treatment evaluation can be difficult so we have to conclude that this area of treatment is complicated. Kadokura et al. reported on their results from a University Hospital setting, suggesting that special consideration for patients such serious symptoms as intractable Vertigo should include balance tests, MRI and sensory neural hearing evaluation, symptoms such as dizziness as well as gastric discomfort, menstrual cramps, insomnia, or exercise with fibromyalgia should also be tracked in future clinical research models.

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