

A Discussion of One Treatment Protocol for Tinnitus

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Anyone who has ever treated patients for tinnitus knows that despite the protocols given in acupuncture texts, this condition is often difficult to treat successfully. It does not always respond well to either acupuncture or internal medicinal approaches.

Below is a translation of a research study on this disease done by two doctors and published in the Zhejiang Journal of Chinese Medicine (Xiao-qing J, Min-da X. A clinical audit of the acupuncture treatment of 35 cases of subjective tinnitus. *Zhe Jiang Zhong Yi Za Zhi* [Zhejiang Journal of Chinese Medicine] 1998, no. 3, p. 118). Tinnitus is divided clinically into two types -- subjective and objective - with subjective tinnitus the more commonly seen of the two.

Tinnitus can affect both work and lifestyle. Previously, a relatively large number of treatments have been tried. However, because the etiology and pathophysiology of this condition has not been clearly and firmly established, treatment effects have not been ideal. Since 1993, the authors of this article have treated 35 cases of subjective tinnitus with acupuncture with satisfactory treatment efficacy as described below.

Cohort Description

Seventy patients were divided into two groups. Excluded were anyone with outer or middle ear diseases, intracranial diseases, anemia, hyperthyroidism or other systemic diseases. Among the 35 patients in the so-called treatment group, 19 were male, 16 female. Their ages ranged from 49-72, with a median age of 58.6. The duration of their disease had lasted from a half month to three years. Twenty-six had tinnitus in only one ear, while nine had tinnitus in both ears. Before treatment, tinnitus was measured at 500-6000 Hz at a strength of 20-60 dB. In 25 cases, there was an accompanying decrease in auditory acuity.

Among the 35 patients in the comparison group, 20 were male, 15 female, with a median age of 56.5 years. Their course of disease had lasted from seven days to two-and-a-half years. Twenty-eight had tinnitus in one ear only, while seven cases experienced bilateral ringing. Before treatment, tinnitus was measured at 500-6000 Hz and a strength of 15-65 dB. In 23 cases, there was an accompanying decrease in auditory acuity.

Treatment Method

In the treatment group, the main or ruling points consisted of *ting hui* (GB 2) and *yi feng* (TB 17). If there was wind fire harassing above, *zhong zhu* (TB 3), *xia xi* (GB 43) and *tai chong* (Liv 3) were added. If there was phlegm turbidity blocking and obstructing, *zu san li* (St 36) and *feng long* (St 40) were added. If there was kidney essence debility and vacuity, *shen shu* (Bl 23) and *tai xi* (Ki 3) were

added.

All points were needled with the patients either prone or supine and after they points were disinfected. *Ting hui* and *yi feng* were needled perpendicularly 1-1.2 *cun*. After the *qi* was obtained, they were connected to a G-6805 electroacupuncture machine and stimulated with as strong a degree as the patient could bear. The needles were retained for 20 minutes.

Shen shu and *tai xi* were needled with the supplementing method. *Zhong zhu*, *xia xi*, *tai chong* and *feng long* were needled with draining method first, followed by the supplementing method. *Zu san li* was needled with even supplementing/even draining method. After the *qi* was obtained at these points, the needles were retained for 20 minutes.

Patients were treated three times per week, with 10 treatments equaling one course of treatment. After each course of treatment, a week was skipped. After three continuous courses of treatment, results were measured.

In the comparison group, 5mg of 654-2 tablets were administered orally three times per day. One tablet of *du ke xi* tablets was administered orally twice per day.¹ Ten days equaled one course of treatment. Treatment was continued for three such courses. Before and after treatment, auditory acuity was measured with a Bosch K-10 machine.

Treatment Outcomes

Cure was defined as disappearance of tinnitus. Marked effect meant that the tinnitus was basically eliminated. After treatment, the ringing in the ears had decreased by 20 dB or more. Some effect meant that the tinnitus had lessened. After treatment, the ringing in the ears had decreased by 10 dB or more. No effect was defined as no improvement in the symptoms and no diminishment in the ringing or less than a 10 dB decrease in ringing.

Based on the above criteria, eight cases (22.9%) of the treatment group were cured. Another 10 cases (28.6%) got a marked effect, while nine cases (25.7%) felt some effect. Thus, the total amelioration rate was 77.1%. The shortest number of treatments until cure in this group was three.

In the comparison group, two cases (5.7%) were cured; six cases (17.1%) got a marked effect; 10 cases (28.6%) got some effect; and 17 cases (48.6%) got no effect. Thus, the total amelioration rate in the comparison group was 51.4%.

There was a relatively marked statistical difference in outcomes between these two groups ($P < 0.05$). Taking just those patients who were either cured or received a marked effect, the difference was even more significant (51.4% versus 22.9%, respectively).

Researchers' Discussion

According to the authors of this article, most cases of tinnitus are closely related to the liver and kidneys. At the same time, the ears are also circulated by the *shao yang* channel. Therefore, the acupuncture treatment of tinnitus should mainly rely on *shao yang* channel points. Within this formula, *yi feng* is a point on the hand *shao yang* channel, while *ting hui* is a foot *shao yang* channel point. These two points course and free the flow of the local *qi* and blood, thus making the ears more acute of hearing.

If wind fire harasses above, this is because of liver-gallbladder fire effulgence. Therefore, the main points are combined with the source point of the liver channel, *tai chong*; the gallbladder constructive point, *xia xi*; and the triple burner transport point, *zhong du*, in order to drain replete fire and clear its source. If phlegm turbidity is blocking above, this is mostly due to *yang ming* turbidity and heat counterflowing upward. Therefore, *zu san li* and *feng long* were chosen to wash away phlegm turbidity in order to open blockage.

The kidneys open into the orifices of the ear. If the kidneys are debilitated, the essence *qi* is unable to construct the ear above. Therefore, the back transport point (*shen shu*) and the kidney channel source point (*tai xi*) are chosen to supplement the kidney essence in order to disinhibit the orifices of the ear.

Author's Commentary

While Drs. Jin and Xu have supported their choice of points with logical TCM theory, there are several things we cannot know from reading their report, the knowledge of which would be very helpful in analyzing their outcomes. First, their cohort description says that the subjects had tinnitus from 14 days to three years. It would be interesting to know if there was any correlation between the length of the disease and the amelioration rates. It would also be interesting to know if there was any correlation between amelioration rates and the patients' ages, but the authors do not share this information in either case.

Secondly, this study has only a limited breakdown of pattern descriptions and no discussion of other related symptoms. This information would allow us to know more about the overall state of health of the patient population and therefore have some idea as to how they might respond to therapy.

Finally, there is no description of the therapeutic actions of the two Western medicines used by the comparison group. Despite the fact that the authors wish to emphasize the higher positive outcomes of the acupuncture treatment group, it is unfortunate that no further information is included about the medicinals used. It is possible that a Chinese doctor reading this article may have access to information about these medicines via a Chinese version of the *Physician's Desk Reference*.

In any case, the lack of this information allows the authors to put a positive spin on their outcomes, which may not look quite as good if more detail was given. We just don't know.

According to *The Treatment of Disease in TCM, Volume II: Diseases of the Eyes, Ears, Nose and Throat*, tinnitus can be discriminated into 10 possible patterns: wind heat invading the lungs; exuberant liver fire; ascendant liver yang; insufficiency of liver blood; kidney yin vacuity; insufficiency of kidney *qi*; breakdown of interaction between the heart and kidneys; spleen/stomach vacuity; phlegm fire; and *qi* stagnation and blood stasis.

Since we don't know the treatment principles of the internally administered Western medicines, we don't know which, if any, pattern(s) related to this disease they are designed to treat. While the authors give a rationale for their acupuncture protocol, several possible patterns are responsible for the symptoms of tinnitus which their protocol does not cover. That said, they did achieve good results with the protocol they used. Since tinnitus can be difficult to treat successfully by any means, any treatment which has some success is a useful addition to our repertoire.

Notes

1. These are Western medicines, the pharmacological names and actions of which have not been able to be determined.

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