

Japanese Acupuncture - Current Research

Japanese Traditional Medicine Text (17) – Psychiatry

Tetsuya Kondo

1. Present State of Clinical Studies Outside of Japan

With respect to studies in the fields of psychiatry and psychosomatic medicine outside of Japan, a detailed review of psychosomatic disorders associated with fibromyalgia¹⁾ has been published in 2001, and those of depression²⁾, chronic pain¹⁾, anxiety disorder²⁾, schizophrenia²⁾, drug addiction²⁾, and gastrointestinal disorders³⁾ have been published in 2008.

Depression is among the top ten diseases for which patients tend to rely on complementary and alternative medicine due to dissatisfaction with Western medicine. Many large-scale, randomized controlled studies thus exist regarding depression⁴⁾. Among its symptoms, acupuncture and moxibustion has been reported to be more effective against anxiety and somatic symptoms than the tricyclic antidepressant amitriptyline, and caused fewer side effects⁵⁾. In a comparison with a tetracyclic antidepressant, acupuncture and moxibustion was found to have roughly the same effect. However, both antidepressants used in the comparison are old drugs, and the only study that provides a comparison with a new drug, namely serotonin reuptake inhibitor that is presently the mainstream, simply reports that a kind of serotonin reuptake inhibitor, paroxetine had a greater effect when used in addition to acupuncture and moxibustion than when used alone⁶⁾. New studies need to be made, as new drugs such as mirtazapine have appeared that provide the same effectiveness as amitriptyline but greater tolerability⁷⁾, and also since different drugs are effective against different symptoms⁸⁾.

With regard to chronic pain, many studies suggest that acupuncture and moxibustion is effective particularly against lower back pain and head and neck pains¹⁾. This is related to the fact that meridians are concentrated in the head and neck area, with 7 of the 12 main meridians and 7 of the 8

extrameridians passing through the area. It may also be related to the fact that such extrameridians as the yang link , belt , governor , and yan heel vessels run through the lower back area. The American Psychiatric Association classifies chronic pain of which psychological factors play an important role in the development, severity, aggravation or sustainability as a type of psychiatric disease, but hardly any specific study on this exists.

Fibromyalgia is a subject of many high-quality randomized controlled studies, which report that real acupuncture is more effective than sham acupuncture in improving scores, mainly by raising the pain threshold. However, these studies do not entail long-term follow-up, so the effects of additional treatment, appropriate stimulation frequencies, the effects of combining drug therapy, and other such aspects remain unknown.

Anxiety disorders are classified into heart and kidney deficiency, liver excess, non-interaction between the heart and the kidney, etc., and are a subject of various studies. There are a number of reports on randomized controlled studies that have utilized ear acupuncture to treat generalized anxiety disorders and anxieties accompanying surgery and colonoscopy. According to them, ear acupuncture has contributed to reducing the necessary amount of anti-anxiety drug before endoscopy and mitigating discomfort and pain during the exam. However, no studies exist that have been conducted in Japan. On the whole, evidence level is low in most papers, so future studies need to be made. It should also be noted that no reports exist regarding other forms of anxiety disorders such as obsessive-compulsive disorders and panic disorder⁹⁾.

Schizophrenia has not been a subject of any randomized controlled studies. The only controlled test that exists reports that the metabolite which increases when the disorder is exacerbated is further increased with electroacupuncture. As this goes against the effectiveness of acupuncture and moxibustion, further studies need to be made.

Drug addiction is studied mostly outside of Japan, as a reflection of social situations. A number of randomized controlled studies have been conducted, but they include studies that have both proven or failed to prove the effectiveness of acupuncture and moxibustion, probably due to differences in severity of the disorder and the psychotherapy that was applied in combination.

With regard to the digestive system, patients with a tendency toward depression are known to develop a disease based on hypersensitivity to pain in hollow organs from the esophagus to the intestine. They are respectively called irritable esophagus, biliary dyskinesia, and irritable bowel syndrome. The mutual complication of biliary dyskinesia and irritable bowel syndrome is high, as seen in Shimada et al.'s diagnosis criteria for biliary dyskinesia, which includes the presence of irritable bowel syndrome among the reference findings¹⁰, and suggests that a common basis exists. Acupuncture treatment has proven effective against the above types of conditions, particularly irritable bowel syndrome, but since sham acupuncture was also found to be effective, it likely acted on the pain threshold in the central nervous system that is regulated by opioid.

2. Present State of Clinical Studies in Japan

Studies in the fields of psychiatry and psychosomatic medicine in Japan include those that take into consideration the Japanese climate. Ascendant hyperactivity of liver yang caused by yin deficiency, which is a problem in China's dry inland climate, and warm dryness that is an effect of dryness in the hot season, are rarely seen in Japan. However, humidity, which becomes a problem on the continent only during the long summer, is a year-round problem in Japan, and treatment needs to take cold humidity into consideration in the winter¹¹. In fact, there have been cases where treatment that simultaneously addresses the cold and humidity has been applied to depression, when stress far exceeded the patient's physical strength. Asia is experiencing

a dramatic increase in population, with the majority of the people living along the coastal regions, where humidity is high due to the impact of the monsoon climate. There is high possibility that Japanese-style treatment could apply to people in those regions.

In Japan, dialectics is also based on perspectives of Qi, blood, and fluid¹², which is independent of the dialectics of the five viscera. In a large-scale study performed on 914 new outpatients to a psychosomatic department of a university hospital, it was found that Qi deficiency and Qi depression are involved to the same degree in depression among women, while Qi deficiency is involved to a far larger degree than Qi stagnation among men¹³. Qi deficiency and Qi stagnation were involved in depressive state, anxiety state and generalized anxiety disorder in addition to Qi flowback in females and blood deficiency in males¹³. There are also findings that emphasize fluid retention and blood stagnation as factors associated with depression, rather than (liver) Qi depression (stagnation) and other Qi abnormalities that are common to traditional Chinese medicine¹⁴. There have also been findings indicating association between blood deficiency and somatoform disorder in females, between irritable bowel syndrome and Qi flowback, and between eating disorders and fluid retention¹³.

The Sawada method, which is adopted by many practitioners of acupuncture in Japan, focuses on the triple energizer meridians, and particularly the left TE4. Kondo et al. also revealed a model that suggests involvement of excess heat from the triple energizers, namely scybala, nausea, and oligohydruria, in a study on outpatients of mental and psychosomatic disorders, which is consistent with Sawada's theory¹⁵.

It is known that patients with classic psychosomatic disorders, diabetes, or hypertension have little self-awareness of their bodies, and tend to develop the disorder due to poor communication between mind and body. Kansai University of Health Sciences and other such institutions are

conducting studies of evaluation methods for autonomic nervous functions using finger plethysmography that can record measurements in a non-invasive, simplified manner, based on the idea that harmony of mind and body could be achieved by presenting objective indicators in response to one's physical conditions. Oriental medicine places focus on curing diseases in their pre-symptomatic state. The deficiency or excess of one's predisposition is a type of pre-symptomatic disease. As measures that specifically detect subtle changes in a living body, the indicator that is calculated from the Lyapunov exponent, which is a non-periodic component of finger plethysmography and expresses the vagaries of the trajectories of the pulse wave, and the indicator that is calculated from entropy as an indicator of complexity, are reported to be high in the excess pattern and low in the deficiency pattern¹⁶. It has also been observed that these indicators recover in the healthy direction after exposure to the aromatics of moxibustion therapy¹⁷. The healthy direction refers to a state in which subtle adjustments are made per pulse and bring an abundant change. Additionally, it has been reported that these indicators drop below normal levels at the preliminary stage before developing depression, which is also a pre-symptomatic disease¹⁸. Furthermore, the closer F Constant, an index of how many pulses equal a cycle, is to 4.69, the better homeostasis is maintained in a living body. When this is obtained through finger plethysmography, homeostasis is reported to be highest in the medium pattern that determines the degree of deficiency in response to questions about fatigue, chills, and pernoctation burden¹⁹. If a state of tension is considered a psychological excess, and sleepiness and fatigue are considered a psychological deficiency, homeostasis is reported to drop below the medium pattern¹⁶ in both cases.

Acupuncture and moxibustion have the effect of mitigating stress. Their effects are reported particularly against saliva chromogranin A, which

is specific to psychological stress²⁰, and amylase, which is said to increase in response to unpleasant stimuli²¹. With regard to the neuroendocrine system, an increase in 17-KS-S/17-OHCS ratio has been reported the day after acupuncture therapy, indicating an increase in latent stress tolerance²².

Psychosomatic medicine in Japan widely introduces transactional analysis, and a unique egogram has been developed as a method of quantifying the intensity of five ego states of an individual, which is an important factor in transactional analysis. There is a theory that associates these five ego states with the five viscera²³. In psychosomatic disorders, in which the same symptoms appear sustainably in a certain organ, the ego of the "adapted child" is so strong that over-adaptation becomes the cause of the disorder in many cases. In fact, when examining the medium pattern between egogram and ryodoraku, it was found that electric current in the spleen and liver decreased among patients whose "adapted child" was predominant over their "free child," and contrarily increased in the liver among patients whose "free child" was predominant over their "adapted child"²⁴. A decrease in electric current in the spleen and liver is a ryodoraku pattern that is deeply related to depressive state such as fatigability, insomnia, taste disorder, depressive mood, and hypobulia, and may reflect depression caused by excess adaptation due to *typus melancholicus*. Such tendency for excess adaptation is at the foundation of disease conditions such as definite chronic pancreatitis²⁵ and gastroduodenal ulcer. Thus, there is strong possibility that mind and body therapy that takes into consideration ryodoraku and psychological aspects could contribute to the treatment of psychosomatic disorders.

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