

[原著]

Thai massage program at Kumamoto Health Science University: Efficacy and scientific evidence

Junichi IYAMA, Shigehito MATSUBARA, Makoto KABURAGI,
Tomonori YASUDA, Yoshihiro IWASHITA

Summary

Alternative medicine such as Kampo and acupuncture has been popular in Japan. Some kinds of Kampo are even included in the public medical insurance system. Not all patients are cured with Western medicine. Many patients suffer from incurable diseases, especially the chronic-type diseases. Alternative medicine has been socially accepted as complementary and integrated medicine. There are 2 aspects in the social needs; one is “efficacy” and the other is “scientific evidence.” We have to respond to the social needs as a therapist and as a scientist.

In Japan, Thai massage is known as one of the various types of massages. Although physical therapists and occupational therapists are the major kinds of manual therapists, very few of them know how to administer the Thai massage technique. Fortunately, our university has collaborations with the Khon Kaen University. There are 2 elective courses for education in Thai massage and other traditional medicine. One is titled “Alternative Medicine” for PT undergraduate students and the other is titled “Integrated Medicine” for postgraduate students. We have learned efficacy and techniques of Thai massage from Dr. Wichai Eungpinichpong and Dr. Akkaranee Timinkul in these courses.

We have developed a novel investigating method, which enables simultaneous analysis of sensory input and motion output. Sensory action potentials are detected in the dorsal root ganglion cells; at the same time, motion analyses are performed by means of hi-speed camera. New findings have been revealed with our method. Sensory inputs with manual intervention affect on motor output. We could understand the mechanisms of some interventions such as manual stimulations and physical modalities.

In conclusion, the educative course is most important to accelerate the dispersion of Thai massage knowledge thorough university collaborations between Thai and Japan. We have to make efforts to clear the scientific mechanisms of Thai massage. Diffusing “efficacy” and making “scientific evidence” would be the major key players to internationally develop the Thai massage techniques.

Current state around alternative medicine and integrated medicine in Japan

Alternative therapies, such as Kampo and acupuncture, were primary and popular treatment in Japan before westernization in Meiji era. Although Western medication had replaced Kampo as the major treatment for a certain period, since the Western medication does not always provide a perfect relief for every patient who is suffering from incurable diseases such as

chronic diseases, some Kampo medications are still working as a part of the public medical insurance system. Alternative medicines have social needs especially when administered as integrated medications. There are two aspects to social needs: efficacy and scientific evidence. Scientific evidence is important to discriminate between dubious and genuinely effective therapies. The number of academic societies related to complementary and alternative

Table.1 Japanese societies in the domain of Complementary and Alternative Medicine

General societies
Japanese Society for Complementary and Alternative Medicine (JCAM)
Japanese Association for Alternative, Complementary and Traditional Medicine (JACT)
Japanese Society for Integrative Medicine (JIM)
Japan Pre-symptomatic Medical System Society
Physical modalities related societies
Japanese Association of Physical medicine, Balneology and Climatology
Japan Medical Conference on Magnetism
Oriental and Kampo medicine societies
Japan Dental Society of Oriental Medicine
Japan Society for Oriental Medicine
Medical and Pharmaceutical Society for WAKAN-YAKU
Japan Society of Acupuncture and Moxibustion
Japan Traditional Acupuncture and Moxibustion Society
Art and music related societies
Japanese Society of Psychopathology of Expression and Arts Therapy
Japan Music Therapy Association
Japan Biomusic Association
Others
Japanese Society of Biofeedback Research
Japan Fasting Therapy Society
Society of Hemorheology and Related Research

medicines has gradually increased (Table 1)¹²⁾.

Thai massage program of KHSU

Thai massage is one of the many types of massages in Japan. Various national licenses are issued for manual therapy (Table 2) owing to the prevalence of certain traditional Japanese manual therapists in Japan³⁴⁾. The national licenses issued as well as the number of approved therapists are as follows: masseur, 101,000; acupuncture and moxibustion practitioner, 81,000; judo healing practitioner, 38,000; physical therapist, 80,000; and occupational therapist, 40,000. In addition to these issued licenses, there are a few ineligible licenses as well, such as chiropractor, seitaishi, and ryoujutushi. The number of therapists with these licenses is yet to be ascertained. Although manual therapists are predominately physical therapists (PT) and occupational therapists, only a few of them know the precise method of administering a

Thai massage. Fortunately, our college is now

Table.2 Massage practitioners in Japan

National license
Masseur : 101,000
Acupuncture & Moxibustion : 81,000
Judo healing practitioner : 38,000
Physical therapist : 80,000
Occupational therapist : 40,000
Non National license
Chiropractor : 10,000~20,000
Seitaishi: unclear
Ryoujutushi : unclear

Number is people who have the license.

collaborating with the Khon Kaen University which has one of the best Thai massage programs in Thailand. In our college, there are two Thai massage programs for either undergraduate or graduate students. One program is titled



Fig.1 Dr. Wichai's Thai massage class

“Alternative Medicine” for PT students. The other is titled “Integrated Medicine” for graduate students. During these programs are opened, Dr. Wichai Eungpinichpong and Dr. Akkaranee Timinkul, professors at Khon Kaen University, give much useful information about both the efficacy and techniques of the Thai massage (Fig. 1, 2).

Novel scientific approach of KHSU

Sensory Information of joint movements, e.g. joint angle or angular velocity, is assumed to be primary provided by muscle spindle afferents. It is known that muscle spindles in relaxed muscles behave as stretch receptors but it is unclear how responded during a passive joint movement in vivo. We have developed novel method enable analyzing sensory input and motion output simultaneously (Fig.3).

Although standard motion analysis enables to detect only motor outputs, in our method sensory action potentials are detected in the dorsal root ganglion cells, at the same time. Motion analysis was performed by means of high speed camera. Rat leg is moved passively. Then muscle spindles were activated and potentials of primary ending and secondary ending went up to spinal cord via dorsal root. We gained these potentials from total 204 rats of 6 to 7 week-old while passive leg motions were analyzed with motion analysis method.

New findings have been revealed with our method. Our study showed that muscle spindle



Fig.2 Dr. Akkaranee's Thai massage therapy

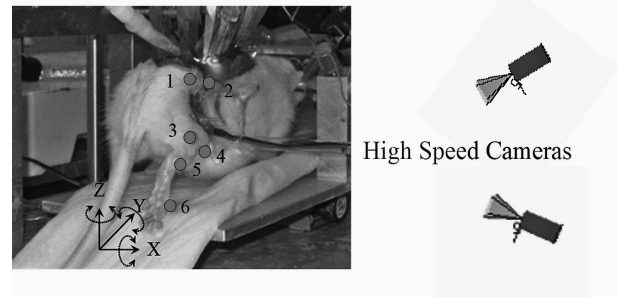


Fig.3 Simultaneous analyze method of sensory input and motor output

afferents were able to be classified into two types according to the firing pattern and the joint angle or joint angular velocity. One type of firing was affected with the change of joint angular velocity accompanying dynamic response and trimodal. Another type of firing pattern was affected with the change of joint angle. The firing rate was increased with joint angle accession.

Then we could reveal the muscle spindle regulation mechanisms of roles of sensory intervention such as manual pressure and other physical modalities. Scientific evidences of manual therapy and physical modalities could be built by

means of our original method.

Future prospects

The educational programs of the Thai massage in our college are important to accelerate the spreading of Thai massage thorough Thai and Japanese university affiliations. Further, we would like to give many chances of practical Thai massage for both young students and therapists. In addition to the promotion of the clinical Thai massage training, we need to clarify un-known mechanisms of the Thai massage scientifically. Diffusing “efficacy” and developing “scientific evidence” can be used as important key terms to gain international recognition for Thai massage

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