The Idea and Application of Tuina in the Prevention and Treatment of COVID-19

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Abstract

While traditional Chinese medicine has displayed a positive and effective role in saving lives of COVID-19 patients, Tuina, which is an important component in Chinese medicine, has also shown its merits in enhancing the immune function and relieving symptoms in COVID-19 patients. This article elaborates on the long history of Tuina in treating and preventing epidemic diseases and its effect in improving the immune function. It also introduces some special Tuina methods, for example, sputum drainage through back-patting to facilitate the discharge of sputum; slant-scrubbing method applied on the hypochondriac regions to give the effect of soothing the liver to regulate qi, which may also relieve anxiety of patients with COVID-19; and spine-pinching method to enhance human resistance to diseases, which is more suitable for the elderly and children with mild or common types of COVID-19 and can also be used for health care and disease prevention among the general population. Tuina methods for children using the common children’s specific Tuina points and manipulations to improve children’s body constitution are also mentioned in the article. Self-acupoint Tuina for health care, including acupoints for prevention purposes, acupoints for early clinical stage (mild stage) and recovery stage, as well as acupoints for children’s health care and specific operations, is also illustrated in the article. Moreover, exercises for health care, such as eight-section brocade, Shaolin internal exercises, six-character formula, and change of tendons, are also presented. In the final analysis, this article is aimed at some ideas and feasible applications of Tuina therapy in the prevention and treatment of COVID-19, in the hope to provide some worthy experience and introduce methods in preventing and fighting against COVID-19 to people all over the world.

Keywords: Acupoint, COVID-19, idea and application, immune function, prevention and treatment, special Tuina method, specific Tuina points, Tuina

LONG-TERM INVOLVEMENT OF TUINA IN TREATING AND PREVENTING EPIDEMIC DISEASES

Tuina, known as Anmo (按摩) in ancient times, belongs to the category of external treatment within Chinese medicine theory. There are records of inscriptions about Tuina on bones or tortoise shells in the Shang Dynasty (16th–11th century B.C.). In Han Shu “Yi Wen Zhi” (《汉书·艺文志》Chronicles of the Han Dynasty “Literature and Arts”), there is not only a treatise on Huang Di Qi Bo An Mo Shi Juan (《黄帝岐伯按摩十卷》Ten Volumes on Tuina Therapies Developed by Huangdi and Qi Bo), but also a contemporary Tuina physician named Yu Fu.

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More than 2000 years ago, *Huang Di Nei Jing* (《黄帝内经》 Huangdi’s Internal Classic) had already recorded the method called “persistent manipulation on certain points” (Anmo) to treat “mild ailments”. A mild ailment is an early stage of a disease. In the early stage of mild ailments, Tuina can be applied to the meridian points of the human body to unblock the meridians and promote the circulation of qi and blood, hence to prevent the occurrence or development of diseases.

COVID-19 falls under the category of epidemic diseases in TCM. It is highly contagious and susceptible to a wide range of diseases, primarily characterized by fever, fatigue, and dry cough. It is mentioned in the article on *Su Wen* “Ci Fa Lun” (《素问·刺法论》Plain Question “Discussion on Acupuncture Methods”) that “all the five epidemics are easily infected by people, no matter how old or young they are, and the symptoms are similar (五疫之至, 皆相染易, 无问大小, 病状相似),” and “people not being infected are those with a healthy qi stored inside the body, so that the pathogenic qi will not invade their body (不相染者, 正气存内, 邪不可干).” Some basic thoughts and applications can be found in the monograph of the needling method in *Huangdi’s Internal Classic*, involving acupuncture (including Anmo, and Anmo tools, i.e., round needle and sword-sharpened needle of the nine needles, tools of that time) to improve the function of human resistance to diseases. Thereby, Tuina (or acupuncture) can be helpful in the early stages of mild ailments of COVID-19.

In his book *Zhou Hou Bei Ji Fang* (《肘后备急方》Emergencies), Ge Hong in the Jin Dynasty discussed the typical symptoms and epidemic characteristics of the disease that seriously endangers children’s lives, “Tianxing lupus” (smallpox), and put forward the method of “saving shock apoplectic attack” by pinching Renzhong with the fingernails. Epidemics frequently occurred in the Ming and the Qing Dynasties, and Tuina practitioners of that time took an active part in fighting against epidemics and summarized their experiences in the book *Yi Zhi Ding Chan* (《一指定禅》Special Meditation in Tuina with the Thumb). Song Feng Shuo Yi (《松峰说疫》Songfeng’s View on Epidemic Diseases) elaborated the eight methods of epidemic disease treatment and enriched the practice of external treatment of epidemic diseases. In addition, in August 1934, Ta Kung Pao published an article on the treatment of epidemic diseases by Tuina, as well as records on the treatment of tuberculosis by internal power Tuina, which were recorded in the 1959 edition of the “Chinese Tuina” textbook.

To sum up, it can be seen that Chinese Tuina therapy has long been involved in the practice of improving human viscera function and preventing and controlling diseases.

**Tuina’s Effect on Improving the Immune Function**

The onset of COVID-19 is closely related to the human immune function. If the immune function is strong, the body’s resistance will be strong and the disease is less likely to occur or the disease will only be mild or will not develop further. It is recorded in *Huangdi’s Internal Classic* that “when the healthy qi is stored inside the body, the pathogenic qi will not invade the body” (正气存内，邪不可干) and “when the pathogenic qi invades the body, it will result in a deficiency of healthy qi in the body” (邪之所凑，其气必虚). Thus, it can be seen that the “healthy qi” in the human body can help resist diseases. If the “healthy qi” is deficient, “the pestilent qi” can invade the body and disease will occur; if the “healthy qi is sufficient,” people will not easily get sick, or even if disease occurs, symptoms will be mild, recovery will be quick, and the prognosis is good.

Tuina therapy is widely used to improve immunity. Consider the three major schools of Tuina in Shanghai, the Academic School of Yi Zhi Chan (一指禅) Tuina, the Academic School of Rolling Tuina and the Academic School of Internal Power (内功) Tuina. In clinical applications, the Academic School of Yi Zhi Chan (一指禅) Tuina follows the operational principles of “soft as tonic, strong as purgative, soft and strong combined, soft as imperative, penetrating the bone gap (sutura), and harmonizing Ying (营) and Wei (卫).” It attaches great importance to assisting the vital qi, adjusting the functions of viscera, harmonizing Ying and Wei, following the meridians and collaterals, and pushing acupoints to enhance the immune function of the body. Clinically, it is able, through Yi Zhi Chan, to push manipulation [Figure 2] on Zusanli (ST 36), Zhongwan (CV 12), Qihai (CV 6) acupoints to treat leukopenia.

The rolling manipulation (㨰法) [Figure 3], belonging to the Academic School of Rolling Tuina, is used to perform on the back bladder meridian on the first line, dredge channels and collaterals, invigorate qi, and promote the circulation...
of blood. It can stimulate the back-Shu points (背俞穴) and improve the function of the viscera, thus improving the overall human function and immune function, which is usually clinically applied to treat a susceptible person with low immune function. In addition, the pinching manipulation on both sides of the spine, from the lumbosacral to Dazhui (GV 14), known as ridge pinching, can also improve the immune function of the body.

The Academic School of Internal Power (内功) Tuina emphasizes the importance of strengthening body resistance and eliminating evil and attaches great importance to holism. It not only requires doctors to practice special exercises but also requires patients to do so as well, to improve their “healthy qi.” After a period of exercises, patients’ physique is improved, and then combined with manipulation treatment, the result will be more effective. The internal power Tuina manipulation is noted for its scrubbing method (擦法), which is partial to warm tonification and can be used in the treatment of fatigue syndrome and low-level function of the viscera with satisfactory results.

Experimental studies have also been carried out on the improvement of the immune function by Tuina. Researchers once found that after 10 mins of pushing the bladder meridian on both sides of the back with the whorl surface of the thumb, the total number of white blood cells in normal people could be slightly increased, and the phagocytic index of leukocytes (cellular immunity) was significantly increased. Serum complement titer (serum immunity) was significantly increased and remained so for 4 hours. Spine-pinching therapy has been used to treat infantile rotavirus diarrhea, shortening the natural course of the disease. Someone has observed the effect of Yi Zhi Chan pushing on transplanted sarcoma LDR mice after using Zhongwan (CV 12), Guanyuan (CV 4) and Zusanli (ST 36) points, and found that Yi Zhi Chan Tuina could inhibit the growth rate of mouse sarcoma, because the natural killer cells in mice after Tuina were higher than those in the control group, with statistical significance. It can be seen that Yi Zhi Chan Tuina can improve the immune function of mice and help to inhibit the growth of tumor cells.

In conclusion, the effect of Tuina therapy in improving the human immune function has been confirmed both clinically and experimentally. Tuina will surely play a more significant role in improving the human immune function and is expected to achieve some satisfactory effects in the prevention of COVID-19.

**Special Tuina Methods**

With thousands of years of advancement, Tuina therapy has developed many operational methods and special manipulations and has been widely used in the treatment of diseases. In the prevention and treatment of mild cases of COVID-19, these methods can also be applied in different situations.

**Sputum drainage by the back-patting method**

In patients with COVID-19, sputum is difficult to discharge, so a prone position can be used to pat the back of the patients to enable the discharge of sputum, the method of which has been widely used in the treatment of patients with COVID-19. The operating procedures: The doctor gently pats the patient’s back with a hollow palm, from the bottom of the back to the top, from outside in to perform the operation, which is conducive to the discharge of lung sputum.

**Sputum drainage by chest-patting method**

The operating procedures: The patient takes a sitting position, whereas the doctor closes the fingers naturally, using the whorl surface of the index finger, middle finger, and the ring finger to pat the chest to help the discharge of sputum.

**Palm-vibrating Method on the Back**

The operating procedures: The patient takes a sitting position, whereas the doctor places the palm gently on Feishu (BL 13) on the back and concentrates his mind on the palm. The forearm muscles are primarily used to make a static contraction, and then a rapid and strong vibration is generated, thus bringing the effect of relieving chest stuffiness and regulating the flow of qi.

**Palm-flapping method on the abdomen**

The operating procedures: The patient takes a sitting position, whereas the doctor places the palm gently on Qihai (CV 6) and Guanyuan (CV 4) as the center. The doctor concentrates his mind on the palm and the forearm muscles are used to make a static contraction and then a rapid and strong vibration is generated, thus bringing the effect of tonifying the vital qi and building up the body.

**Palm-vibrating method on the low back**

The operating procedures: The patient takes a sitting or prone position. The doctor places the palm gently on the central part of the low back, Mingmen (GV 4) and Shenshu (BL 23), and concentrates his mind on the palm. The forearm muscles are used to make a static contraction, and then a rapid and strong vibration is generated, thus bringing the effect of warming the kidney and supplementing Yang.

**Finger-vibrating method on Zhongwan (CV 12)**

The operating procedures: The patient takes a supine position; the doctor gently places the middle finger on Zhongwan (CV 12) and concentrates his mind on the middle finger. The
forearm muscles and hand muscles are used to make a static contraction, which makes the middle finger vibrate strongly and quickly, thus bringing the effect of warming and strengthening the spleen.

**Palm-scrubbing method on the back**
The operating procedures: The patient takes a sitting or prone position, and the doctor puts the whole palm surface on the back of Dazhui (GV 14), Feishu (BL 13), or Shenshu (BL 23) on the low back for straight and to-and-fro friction movement to generate a sense of warmth [Figure 4]. Palm-scrubbing the upper back has the function of warming the lung and reducing phlegm while palm scrubbing the low back has the effect of warming the kidney and supplementing Yang. It may also enhance the overall function of patients with COVID-19.

**Slant-scrubbing method on hypochondriac regions**
The operating procedures: The doctor stands behind the patient in a sitting position and scrubbing the patient’s upper hypochondriac regions down to the lower front with the palms of both hands, thus bringing the effect of soothing the liver to regulate qi, which may also relieve anxiety of patients with COVID-19.

**Spine-pinching method**
The operating procedures: The patient takes a prone position, exposing the back, and the doctor pinches the spinal skin continuously and moves from the bottom to the top of the spine 3–5 times [Figure 5]. This method has the effect of adjusting the function of the viscera, strengthening the function of the spleen and stomach, and enhancing resistance to diseases. This method may be more suitable for the elderly or children with mild and common types of COVID-19. It can also be used for health care and disease prevention among the general people.

**Palm-rubbing method on the abdomen**
The operating procedures: The patient takes a supine position, and the doctor uses the palm of the hand to make a clockwise (or counterclockwise) circular motion on the abdomen of the patient for about 5 mins, thus bringing the effect of regulating the stomach as well as gastrointestinal function, and relieving food stagnation.

**Pointing-pressing method**
The operating procedures: The patient selects an appropriate body position according to the operating sites, and the doctor uses the tip of the thumb to press the corresponding acupoints, such as Dazhui (GV 14), Quchi (LI 11), and Feishu (BL 13) to bring the effect of improving the circulation of qi and dredging collaterals, and regulating the viscera.

**Tuina methods for children**
The operating procedures: The child selects an appropriate position according to the operating sites, or is held by a parent, the doctor applies a corresponding manipulation to operate on the children’s Tuina specific points. Common children’s specific Tuina points and manipulations for treating COVID-19 include “opening Tianmen (天门), pushing Kangong (坎宫), kneading Taiyang (太阳), tonifying Pijung (脾经), tonifying Shenjing (肾经), clearing Feijing (肺经), pressing-kneading Banmen (板门), rubbing the abdomen, pushing up Sanguan (三关) [Figure 6], pushing down Liufu (六腑), pressing-kneading Zusanli (ST 36), Dashui (GV 14), pinching the spine, etc.” This approach can also be used for preventive care or for mild cases of COVID-19 in children (especially when no specific medications are available).

The above special manipulation methods of Tuina can be combined with other therapeutic methods, which are especially suitable for patients in mobile cabin hospitals, with mild cases, as well as for children.

**Self-acupoint Tuina for Health Care**
It is recorded in Huangdi’s Internal Classics that “superb doctors treat patients before diseases really occur” (上工治病，不治已病治未病). This fully embodies the concept of disease prevention in the Chinese medicine theory. Self-acupoint Tuina for health care can be a relatively important role in strengthening the body and preventing diseases in the Chinese medicine theory. Ancient people had long attached great importance to acupoints for health care. They called some acupoints that could strengthen the body.
“health care acupoints.” They are Dazhui (GV 14), Qihai (CV 6), Guanyuan (CV 4), Shenshu (BL 23), Mingmen (GV 4), Zusanli (ST 36), etc. Relevant clinical and animal experiments have also confirmed that these acupoints can improve the immune function. Here are five methods illustrated as follows:

Acupoints for prevention purposes
Pressing Yingxiang (LI 20), Taiyang (EX-HN 5), Zhongwan (CV 12), Zhongfu (LI 1), Qihai (CV 6), Zusanli (ST 36) and other acupoints, for 1 min per acupoint; scrubbing Shenshu (BL 23) and Dazhui (GV 14), until the acupoint regions are warm.

Acupoints for early clinical stage (mild stage)
Pressing-kneading Yunmen (LU 2), Chize (LU 5), Fenglong (ST 40), Yuji (LU 10), Quchi (LI 11), Zusanli (ST 36), Dabao (SP 21), Guanyuan (CV 4), Neiguan (PC 6), Zhangmen (LR 13), Qimen (LR 14), Tanyu (CV 17), for 1–2 mins per acupoint, rubbing the abdomen clockwise for 3–5 mins.

Recovery stage
Pressing-kneading Guanyuan (CV 4), Qihai (CV 6), Tanyu (CV 17), Zusanli (ST 36), Sanyinjiao (SP 6), Neiguan (PC 6), Taiyuan (LU 9), Taixi (KI 3), Fuji (KI 7) and other acupoints for 1–2 mins per acupoint, scrubbing Shenshu (BL 23), until the points are warm.

Points for children health care and operations
Opening Tianmen (天门), pushing Kangong (坎宫), kneading Taiyang (太阳), kneading Huangfengchudong (黄蜂出洞), pushing up Sanguan (三关), pressing-kneading Banmen (板门), moving Neibagua (内八卦), rubbing the abdomen, kneading Ershanmen (二扇门) [Figure 7], pressing-kneading Zusanli (ST 36), part-pushing shoulder blades, pinching the spine, etc.

Basic exercises for health care
Eight-section brocade (八段锦), Shaolin internal power exercise (少林内功) [Figure 8], six-character formula (六字诀), and change of tendons (易筋经), etc.

In conclusion, self-acupoint Tuina and basic exercises for health care are very cost-effective in health economics and are beneficial to bodily health and can be used to enhance the immune function and prevent epidemic diseases.

Since there are no specific medications for COVID-19 and no vaccines successfully developed or applied up to now, the treatment of COVID-19 will resort to a multidisciplinary cooperation, the combination of both Chinese and Western medicine and certain accurate treatment measures in order to achieve success. Tuina, as a way of external treatment in Chinese medicine, will surely play a significant role in the fight against COVID-19, and it may be highly recommended to be applied in improving the human immune function, body function recovery as well as self-health care.

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