



Update Research of TCM -for – COVID-19

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Authors' contributions

This work was carried out in collaboration among all authors All authors read and approved the final manuscript.

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ABSTRACT

Objective: To explore the role of traditional Chinese medicine in the treatment of COVID-19.
Methods: By consulting the relevant literature, to find out the relevant studies of TCM treatment of COVID-19. We refer to the existing domestic articles for analysis and find that TCM plays a crucial role in the treatment of COVID-19. It has been recognized in the world. Many countries took the lead in treating COVID-19, and their novel coronavirus control is more effective than other way-s.
Results: Clinical practice has shown that TCM is an important means of treatment for COVID-19. Chinese acupuncture, cupping, massage, and Chinese medicine are all crucial to the treatment of COVID-19, achieving accurate identification, timely diagnosis, symptomatic treatment, and reduction of complications.
Conclusion: TCM has better-effects in the from COVID-19 because of its arrangement and regulation effect.

Keywords: Research status; clinical TCM-; COVID-19.

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1. INTRODUCTION

Novel Coronavirus infection, formerly known as COVID-19 (Corona Virus Disease 2019. COVID-19), referred to as "COVID-19" and "COVID-19", the WHO named "COVID-192019", refers to the pneumonia caused by novel coronavirus infection 2019. The global pandemic of COVID-19 is not only a serious threat to the health and property of people, but also to the fragile world economy, further presenting the vulnerability of the global economy to the public [1,2]. Chinese medicine of 'disease' has a profound understanding and practice, such as 'five plagues, all dye within' 'vital qi, evil not dry' 'avoid the gas, day never', for thousands of years of traditional Chinese medicine prevention and control of disease theory and practice, is the effective treatment of traditional Chinese medicine will be coronavirus infection based on sudden epidemic infectious diseases, is also the key to traditional Chinese medicine can materialize." [3,4]. To explore the role of TCM in the treatment of COVID-19, TCM is an important means for the treatment of COVID-19.

2. THE RELATIONSHIP BETWEEN COVID-19 AND TRADITIONAL CHINESE MEDICINE

2.1 Clinical Presentation and Route of Transmission of COVID-19

The clinical manifestations of COVID-19 are mainly fever, dry cough and fatigue, which can gradually develop into chest shortness of breath and dyspnea with the progression of the disease. One study showed that among the 99 confirmed cases of COVID-19, most of the patients were mainly fever (83%), cough (81%), and shortness of breath (31%). However, there are still some patients with atypical symptoms, including digestive system, nervous system, cardiovascular system and ophthalmic symptoms as the first manifestations, and some patients do not have fever, or only show medium and low fever. Patients with severe disease rapidly develop acute respiratory distress syndrome (acute respiratory distress syndrome, ARDS), sepsis, renal failure, refractory metabolic acidosis, and bleeding coagulation disorders [5].

Novel coronavirus (SARS-CoV-2) is mainly transmitted through respiratory droplets and contact, and cases have been reported as aerosol and fecal-oral transmission. Epidemiological investigations show that cases

can be traced to close contact with confirmed cases. The transmission route can be roughly divided into the following several types. Direct transmission refers to the infection caused by direct inhalation of sneezing, coughing, talking droplets, and exhaled gas; contact transmission refers to droplets deposited on the surface of articles, contact with mouth, nose, eyes, and another mucosa to cause infection; aerosol transmission refers to droplets mixed in the air to form aerosol and infection after inhalation; mother who tested positive for novel coronavirus may transmit the virus to the baby through the placenta, and novel coronavirus may also actively replicate in placental cells [6].

2.2 Interpretation of COVID-19 by TCM Theory

COVID-19 is widely prevalent and highly infectious. According to this characteristic, the disease can be attributed to the category of "epidemic" and "plague" in TCM, and the cause of the plague is the anger of feeling the epidemic. For a new disease, the most important thing is to analyze the pathogenesis of the disease, through analysis and practice gradually find the right pathogenesis of the disease, know the reason, and the treatment will be more targeted. The COVID-19 epidemic is wet, but the cold and heat nature is unclear. The characteristics of the pathogenesis can be summarized as "wet", "heat", "toxic", "stasis" and "deficiency", the disease changes rapidly, and a variety of changes, involving multiple viscera, and treatment needs to examine the cause, keep the pathogenesis, with the syndrome treatment [7].

2.3 Theoretical basis of TCM in the Treatment of COVID-19

Traditional Chinese medicine in thousands of years of continuous struggle with infectious diseases formed a unique theoretical system, accumulated rich clinical experience, such as early as in the "element inquiry method theory" has "five epidemics too, all phase easy, no ask size, similar... infectious disease description", han dynasty Zhang Zhongjing from the preface "yu clan element, to more than two hundred, since the period, still not ten, the death, three points of two, typhoid ten seven...". visible when the epidemic of infectious diseases is very wide, the mortality rate is extremely high. Based on the pulse syndrome differentiation, typhoid fever summarizes and analyzes the six theories of exogenous febrile diseases including infectious

diseases, identifies the nature and outcome of the diseases, and comprehensively applies the methods of sweat, vomiting, lower and clearing, In particular, Maxingshigan Decoction, Chengqi Decoction and Baihu Decoction are commonly used in clinical treatment of infectious diseases. Liu Wansu put forward "six qi from cremation" in the original disease, innovated the theory of febrile disease pathogenesis, and established the treatment method of "XinJiang solution table" and "urgent to save Yin", which laid the foundation for the establishment of the later febrile disease school and the method of "double solution inside the outside". Wu Youwei not only advocated that the epidemic evil must be used to "pull out rhubarb", even in the early stage of the plague also advocated the application of rhubarb to drive away evil, such as the establishment of the general prescription "three elimination" has rhubarb, that " three elimination, elimination, elimination, not outside. This whole agent of epidemic treatment... ", which can also be regarded as a specific clinical application example of Wu's " double solution " in the treatment of plague disease. The clinical manifestations of COVID-19 are mostly fever, fatigue, chest tightness, epigastric disease, loose stool or diarrhea, greasy moss, smooth pulse, and so on. Wang Mengying said in "Volume 4", " That is, one person receives the wet temperature, and one party suffers the epidemic. ""Warm disease distinguish on focus "cloud:" headache and cold, body pain, white tongue not thirst, thin and thin, pale complexion, chest tightness, not hunger, afternoon body heat, if Yin deficiency, the disease has been difficult, called wet temperature. "If the invasion of external evil, the plague poison, wet trapped in the surface, lung, and stomach disease, wet accumulate heat consumption gas injury, or normal is empty qi, easily evil poison subsidence, once delayed treatment, so that the function of the viscera is damaged, even Yang death Yin exhaustion [8].

3. CURRENT STATUS OF TCM TREATMENT FOR COVID-19

3.1 Research Progress on the Antiviral Effects of Traditional Chinese Medicine

3.1.1 Research overview of traditional Chinese medicines and compound compounds with antiviral activity

It has been proved that many Chinese herbal medicines have antiviral effects. Heat classes such as honeysuckle, root satires, wild

chrysanthemum, forsythia, bitter ginseng, green leaves, ground, purple grass, summer grass, pollen, white weng, heart lotus, bone, yellow, cypress, dragon grass, green pole tonic class such as Huang Mao, licorice, ginseng, ginseng, Tangshan, peony, yam, multiflorum, ji day, Ganoderma lucidum, yellow essence, meat from rong, silk, mountain, qi, natural blood class such as tiger, angelica, sweet attached, notoginseng, elm, side cypress, magnolia bark, etc Solution table, such as ephedra, mulberry leaves, windbreak, wind, cassia branch, bupleurum, mint, and other laxative categories, such as rhubarb, such as mugwort leaves, Wu Juying, and other solid astringent, such as pomegranate skin, andra chinensis and other dampness, such as atractylodes, wormwood, Bodhi, pig Bodhi, etc. Most viral diseases are exogenous fever, and the invasion of the viscera causes the decline or loss of the viscera. According to the strength of the disease and the rise and decline of the body's healthy in the beginning of the use of the disease and the disease in the later stage of the disease. Traditional antiviral prescriptions in recent years, such as a lot of prescriptions such as poison drinks, poison powder, and pulse powder in recent years are also used in the treatment of livestock and poultry viral diseases, such as blue anti-poison drink, Shuanghuanglian oral liquid. The study confirmed that the antiviral effect of Chinese herbal medicine can be divided into direct and indirect pathways. The direct antiviral route is the direct inhibition or killing effect of drugs on the virus [9,10].

3.1.2 Mechanism study on the effect of Traditional Chinese medicine on novel coronavirus

This disease belongs to the category of traditional Chinese medicine "epidemic" disease, the disease because of the feeling of "epidemic rage" gas. As early as the record in the oracle bone inscriptions of the Shang Dynasty, China has been recorded for at least 3,500 years. In the earliest medical book in China, the Huangdi Neijing, there is a discussion on diseases. "On the Law," says: "During the five epidemics, it is easy to dye, no size, and the symptoms are similar". "Healthy qi is stored inside, evil can not dry, avoid its poison gas". Zhang Zhongjing, relieving cold, Li Dongyuan, tonifying the middle, Wu, dampness, and detoxification, Yu Shiyu, Wang Mengying, clearing heat and dehumidification, Yang Lishan, clearing and reducing turbidity, these experience in fighting diseases has been condensed, upgraded to a new theory, marked by the formation of

academic monographs, enriched the academic content of traditional Chinese medicine. Jiang Liangduo believes that in the early stage of this disease, "damp heat injury lung" as the main etiology, high-risk groups can nourish qi, Yin, light clear protection; mild patients in the early stage, with Chinese patent medicine treatment, but need to distinguish dampness, heat, deficiency, reality, precision; severe patients must be both upright and evil, but mainly with gas drug, not early prognosis; critical patients extremely poor, heavy tonic qi to strengthen the essence, etc. Since the outbreak of COVID-19, more than 200 Covid-19-related clinical studies have been registered in the Clinical Trial Registry in China. Therapeutic clinical trials include both new drugs represented by lendifidesivir (emdesivir) and new indications of marketed drugs such as chloroquine phosphate and adalimumab. Most of the clinical studies related to traditional Chinese medicine are efficacy evaluation studies of integrated Chinese and Western medicine, and there are also new indication studies of marketed drugs such as imbibing and phlegm reqing [11].

3.2 Progress of TCM in Improving Immune Function

3.2.1 Study on the influence of traditional Chinese medicine on immune cells and the immune regulation mechanism

On the one hand, Chinese medicine can enhance cellular immunity and humoral immunity function, and promote the physiological function of lymphocytes, monocyte macrophages, and hematopoietic stem cells; On the other hand, Chinese medicine also has immunosuppressive function, reducing the release of inflammatory factors, inhibiting or eliminating the production of antibodies, and inhibiting the proliferation of T cells. Current studies have found that most Chinese medicines have an immune bidirectional regulation function, which normalizes the too high or too low immune response. This bidirectional immunomodulatory effect embodies the theory of "holistic view" and "balance between Yin and Yang" emphasized by Traditional Chinese medicine. Based on the medical experiment and clinical application of TCM in immune system regulation, this paper summarizes the research progress of TCM immune bidirectional regulation function. Studies in recent years have shown that they have anti-tumor effects, and some of them and their compounds have been successfully used in

clinical tumor treatment. The mechanism of action mainly plays the anti-tumor effect by stimulating the activity of macrophages, NK cells, T and B cells, enhancing the function of the reticuloendothelial system and the complement system, and promoting the immune regulation mechanisms such as the secretion of cytokines. Among them, related studies reported that many Chinese medicines include astragalus, ginseng, barberry wolfberry, barberry wolfberry, trichothecenes, and compound, which can improve the immune function of tumor patients and reduce the damaging effect of chemotherapy and radiotherapy on immune organs [12].

3.2.2 Research on the clinical application of Traditional Chinese medicine in improving immunity and disease resistance

- 1) There have been many achievements in the clinical application research of traditional Chinese medicine in improving immune and disease resistance. The human immune system is closely related to energy and organ functions. Therefore, traditional Chinese medicine conditioning can enhance immunity. For example, traditional Chinese medicines such as Astragalus membranaceus, Panax ginseng, Ganoderma lucidum, and Codonopsis pilosula all have the effect of enhancing immunity.
- 2) Acupuncture and moxibustion is one of the traditional Chinese medicine therapies, which can improve immunity by regulating the human meridian system. For example, acupuncture at acupoints such as Zusanli, Guanyuan, and Qihai can enhance immunity. Moxibustion is a warm therapy that can enhance immunity by stimulating the human meridian system. For example, moxibustion on acupoints such as Dazhui, Mingmen, and Zhongwan can improve immunity. Tuina massage is a physical therapy that can enhance immunity by stimulating the human meridian system. For example, massaging acupoints such as Zusanli, Guanyuan, and Qihai with massage can enhance immunity. Traditional Chinese medicine believes that dietary regulation can enhance immunity. For example, eat more foods with immune enhancing effects, such as shiitake

mushrooms, black fungus, sea cucumber, shark fin, etc.

4. EXPERIENCE AND PRACTICE OF TCM IN THE CLINICAL APPLICATION OF COVID-19

4.1 Application of Acupuncture Therapy in the Treatment of COVID-19

4.1.1 Relief effect of acupuncture on respiratory symptoms

Acupuncture has certain advantages and potential in the treatment of CRD, such as acupuncture can improve lung function, hypoxia, carbon dioxide retention, and prevention and relief of respiratory failure in COPD patients. The Global COPD Disease Initiative in 2021 first explicitly proposed that acupuncture can improve patient quality of life. Moreover, a meta-analysis of asthma showed that adding acupuncture to traditional treatments increased the rate of symptom relief in patients. There is increasing evidence that acupuncture can treat CRD by modulating inflammatory response, but due to the complexity of inflammatory response mechanisms, acupuncture is not fully clear about the anti-inflammatory mechanisms for CRD [13].

4.1.2 Effect of acupuncture on immune regulation

It has been found that acupuncture has a regulatory effect on a variety of immune cells. Acupuncture can regulate cellular immunity by regulating the number of subsets and enhancing T-cell activity. Stimulation of acupoints can increase the expression of CD3 + and CD4 + in peripheral blood, and regulate the ratio of T lymphocytes and their subsets in peripheral blood of lung cancer patients. The regulatory effect of acupuncture on the innate immune response is reflected in increasing the number of innate immune cells such as NK cells, neutrophils, and macrophages and changing the level of related cytokines. Acupuncture elevated neutrophils, B cells, and NK cells in patients with chemotherapy, reducing the incidence of leukopenia and neutropenia after chemotherapy. Moreover, acupuncture can regulate humoral immunity by regulating the immunoglobulin and complement system. Immune modulation is the final link in the process of acupuncture. Acupuncture, as an exogenous factor stimulus,

can stimulate the "axonal reflex" of local sensory nerves, releasing a series of cytokines, neurotransmitters, and chemokines, causing local nerve excitation, and local effects are amplified and transmitted to the central nervous system, central integration and initiate neural-endocrine immunomodulation. Acupuncture promotes the release of β neuropeptides, substance P, and vasoactive intestine from the hypothalamus and pituitary; or activates the hypothalamic-pituitary-adrenal axis, releases hormones into the blood and acts on immune cells; or activates the autonomic nervous system and directly acts on immune cells [14].

4.2 Application of massage therapy in COVID-19 rehabilitation

Massage, also known as "massage", is based on the theory of the viscera and meridians of traditional Chinese medicine, combined with the anatomy and pathological diagnosis of Western medicine, and used on the specific parts of the body surface to regulate the physiological and pathological conditions of the body, to achieve the purpose of physical therapy, in nature, it is a physical treatment method. From the treatment of massage, it can be divided into health massage, sports massage, and medical-massage. "Huangdi Neijing" said: "meridians are blocked; disease is born in benevolence, treated to massage", indicating that massage has the role of dredging meridians. Such as knead the foot three li, and push the spleen can increase the secretion function of digestive juice, from the modern point of view of medicine, massage is mainly through stimulating the peripheral nerve, promoting blood, lymphatic circulation, and the metabolic process between tissues, to coordinate the function of various tissues, organs, so that the metabolic level of function has been improved.

According to the patient's situation take acupoint massage, meridian massage, local massage, etc. Acupoint massage: with the thumb finger abdomen kneaded too deep, mutton, Zhongfu, column deficiency, Zhongwan, Zusanli, and other acupoints, cough, pharyngeal itching, dry cough, can add less Shang, chi Ze, and other acupoints, the technique should be gentle, with local warm feeling is better, each time 5~10 min, 2~3 times a day. Meridian massage: with the palm along the hand lunar lung through the clavicle along the inner and outer edge of the upper limb to the thumb direction repeatedly continuously beat 30

times, the technique should be gentle, to the local warm feeling is better, 2~3 times a day. Local massage: in the chest, abdomen, ribs, and other local use method, the specific operation is as follows: chest palm method with palm or full palm along the chest is midline, up and down with the rhythm of ring stroke, in two nipple connection midpoint (danzhong point) area key-stroke, the technique should be gentle, with local have an obvious warm feeling is better, 2~3 times a day. Abdominal palm rubbing method: the epigastric part with the palm surface close to the epigastric part for the clockwise direction of caress, the force should be gentle, do not drive the subcutaneous tissue, with a local warm feeling better. The abdomen with the palm in the abdomen, the palm at the navel (Shenque point), clockwise stroke, force should be gentle, do not drive the subcutaneous tissue, with local warm feeling is better, 2~3 times a day. The interim method: hands five fingers apart, placed on the chest of the adjacent space (the gap between the ribs and the ribs), along the fingers from top to bottom, from bottom to up 5 times. The hands should be symmetrical, the technique should be gentle, with the local warm feeling better, 2~3 times a day [15].

4.2.1 The effect of massage on pulmonary rehabilitation

Tutian River Point has the function of clearing heat and relieving the surface, and is effective for secondary infection of lung cancer; Tubanmen Point has the function of appetizing food, stopping vomiting and diarrhea, eliminating and guiding stagnation; tonifying the spleen can improve transportation and digestion, and nourish lung gold; clearing large intestine can facilitate urination, heat evil, and defecation. Push the river water and push banmen point together, can make the lung heat, intestines, and spleen transport, accumulate, especially banmen point can open its stomach gas, there are in and out, Yin and Yang together, the heart access, qi and blood together, conducive to the disease [16].

4.2.2 Effect of massage on blood circulation and pain relief

Massage has the effect of promoting blood circulation and removing blood stasis, which can improve blood circulation disorders and promote the increase of blood flow [17].

4.3 Application of Cupping Therapy in the Treatment of COVID-19

Tanning therapy, a tank as a tool, the ignited cotton ball is in the tank to heat the air, with the help of the heat of negative pressure, the tank adsorption on the skin's surface, after treatment, the skin can have the size of the tank purple spots or ecchymosis, the effect is to relieve tendons, dispel wind, detoxification, heat, swelling and pain relief, to adjust the balance of Yin and Yang, cure the disease, to leak the internal toxic heat, swelling, pain, activation. The author selected lateral Yifeng, Davertebra, Geshu, diaphragm Yu and other points, and applied bleeding therapy combined with cupping therapy to remove wind and disperse cold, adjust qi machine, promote blood circulation, and relieve pain, to improve the clinical symptoms of facial paralysis and reticular pain [18]. Tanning therapy to treat COVID-19: mainly back yu point, such as lung yu, huang, spleen shu, big vertebral, etc., every 2 d 1, each time the skin is slightly red is appropriate [19].

4.3.1 Effect of cupping on meridian dredging and immunomodulation

Tcupping therapy produces negative pressure attraction through the meridians and acupoints to change the congestion and blood stasis. The acupoints are connected with the internal viscera through the meridians, to treat various viscera diseases.3, dredge the meridians. Tcupping therapy through its warm mechanical stimulation and negative pressure suction, stimulates the body surface acupoints and the meridians, and the acupoints are closely connected with the meridians. Therefore, cupping can dredge the meridians, so that the camp and health harmony, dispel a variety of pathogenic evil in the meridians, qi, and blood unimpeded, tendons, veins, and joints can be maintained, to treat a variety of diseases. In the case of both clinical acupoint extraction and cupping methods, cupping therapy has a bidirectional benign regulation effect.

4.3.2 Effect of cupping on the relief of pulmonary symptoms

Cupping treatment is effective in the treatment of cough. The use of cupping therapy on the back can encourage the human Yang Qi, stimulate the regulating effect of meridians and viscera, and play the role of promoting blood circulation and removing blood stasis, activating

meridians, promoting lung qi and unimpeded airway, to quickly reduce airway resistance, reduce qi and relieve asthma, and relieve symptoms.

5. CHALLENGES AND PROSPECTS OF COVID-19 (CONTINUED)

5.1 Problems and Challenges in Clinical Research

5.1.1 Individual differences and customized needs of TCM treatments.

The understanding of diseases in traditional Chinese medicine focuses on the overall concept of "corresponding between heaven and man" and the way of thinking of "outside and inside" and "cause and treatment". The treatment of diseases in traditional Chinese medicine pays attention to the dialectical view of strengthening and dispelling evil and the characteristics of overall regulation and individualized prevention and control. Traditional Chinese medicine is not look at which medicine can fight a virus and which medicine can be anti-inflammatory. Therefore, we believe that the cause of COVID-19 should be based on the climate characteristics at the end of hai, and it is important to judge the cause according to the clinical manifestations of patients. COVID-19 belongs to the category of traditional Chinese medicine disease, which is caused by the anger of the epidemic and the dampness of the epidemic. To give full play to the advantages of TCM in handling infectious diseases and epidemics, strengthen the role of TCM in "treating untreated diseases", and highlight the characteristics of TCM syndrome differentiation and treatment, exclusive plans need to be formulated.

5.2 Promote the Development of TCM Treatment for COVID-19

5.2.1 Strengthen multi-center and large-sample clinical studies

On June 7, 2020, The State Council Information Office issued the white paper "China's Action against COVID-19", which fully affirmed the important role of TCM in the prevention, control, and treatment of COVID-19. According to the white paper, TCM accounted for 92 percent of the treatment of the confirmed cases, and the utilization rate and total response rate of the

confirmed cases in Hubei province exceeded 90 percent. The proprietary Chinese patent medicines and prescriptions for the treatment of COVID-19 represented by "three drugs and three parties" have definite clinical efficacy, effectively reduce the incidence rate, weight conversion rate, and death rate, promote the conversion of nucleic acid, improve the cure rate, and accelerate the recovery in the recovery period. The White Paper of The State Council and the national diagnosis and treatment plan have fully affirmed the clinical efficacy of TCM in the treatment of COVID-19 represented by the "three drugs and three parties" to the state and society, highlighting the important value of TCM in early intervention, whole-process participation and classified treatment in the fight against the epidemic.

5.2.2 Promote the integration of traditional Chinese medicine and modern medicine

Data mining, and optimal prescription data are the basis of the development of artificial intelligence. To accelerate the construction of TCM data, the first thing is a large number of TCM ancient books, documents, and clinical medical cases. Therefore, data mining technology is widely used in the research of TCM, and great progress has been made in many aspects. The application of artificial intelligence in the diagnosis and treatment of TCM "looking, smelling, asking, cutting" is a unique method of disease diagnosis and detection of TCM. It is defined for the first time in "61 Difficulties" and used today. It studies the change law of the human function state from a unique perspective, which is the cornerstone of clinical syndrome differentiation of TCM. The strong infectivity and rapid transmission speed of COVID-19 hinder the clinical application of four diagnoses to some extent. After the outbreak, in the Hubei Province National Science and Technology emergency research project combining Chinese and Western medicine prevention and control of new coronavirus pneumonia clinical research, namely the ward with mobile APP four collection, transmission to the designated platform for data processing, realize the contactless, real-time dynamic data acquisition and analysis, provides the basis for TCM remote diagnosis and treatment, also to establish COVID-19 diagnosis model of traditional Chinese medicine provides a big data basis. With the increasing number of discharge cases of COVID-19 patients and the deepening of their understanding of the disease, it can meet

the large and more detailed treatment needs of the recovery population [20-21].

5.2.3 Strengthen the clinical practice and experience summary of TCM

Strengthen the construction of clinical teaching capacity in TCM departments in general hospitals. We will support qualified general hospitals in exploring standardized training for TCM doctors. We will strengthen the training of nursing staff in TCM departments, improve the ability of syndrome differentiation and nursing with TCM characteristics, and provide TCM characteristic nursing and health guidance. We should carry out talent training in "Western learning". Public general hospitals should support clinical doctors in learning TCM knowledge and skills, and guarantee their learning time, salary, and treatment. We will organize the training of high-level talents of "Western medicine learning Traditional Chinese medicine", strengthen the study and clinical practice of classical Chinese medicine, and train high-level talents of Integrated Traditional Chinese and Western medicine the great rejuvenation of the Chinese nation, to insist on Chinese.

5. CONCLUSION

The results show that TCM can effectively treat COVID-19, and it is especially effective for mild and common cases according to the clinical efficacy index, which is conducive to reducing the risk of mild or common cases becoming severe cases. For mild and normal cases, TCM can shorten the time of viral clearance, remission time of clinical symptoms, and hospital stay compared with conventional treatment alone. The intervention with conventional therapy is not only well tolerated, but also similar to the safety of conventional therapy alone; early use of TCM may improve clinical outcomes in patients with mild and common COVID-19. The report suggests that WHO should share the results of the assessment with Member States, given the evolving nature of the pandemic promptly. Member States are encouraged to consider the possibility of using TCM for the treatment of COVID-19 within their health-care system and regulatory framework; encourage the sharing of experiences and lessons, especially positive experiences gained through organized TCM research programs and clinical experience from China. Inheritance innovation and development of traditional Chinese medicine an important

content of the cause of socialism with Chinese characteristics, is the great rejuvenation of the Chinese nation, to insist on Chinese and Western medicine, Western medicine and coordinated development of health health development model with Chinese characteristics, play to the advantages of traditional Chinese medicine, promote our life science innovation breakthrough, carry forward the Chinese excellent traditional culture, enhance national confidence and cultural confidence, promote the civilization mutual learning and hearts are interlinked, promote the construction of human destiny community is of great significance. Li Zongyou, director of the Monitoring and Statistics Center of the State Administration of Traditional Chinese Medicine, said, Following the overall requirements of "combination of peacetime and wartime, the combination of professional and part-time activities, coordination and linkage, and rapid response", Further strengthen the TCM emergency medical rescue capability, Improving the level of the prevention and treatment of major infectious diseases in TCM hospitals, By setting up the only binding indicator in the plan of "the establishment of the proportion of fever clinics in public hospitals of tertiary TCM and integrated Traditional Chinese and Western medicine hospitals (excluding specialized TCM hospitals)", Reflecting the country's high hopes for TCM epidemic prevention since the outbreak of COVID-19, It shows that TCM plays an indispensable role in the emergency response of emerging infectious diseases and public health events in the future.

6. LOOKING INTO THE FUTURE OF TCM IN COVID-19 TREATMENT

- a) Further study the action mechanism of Chinese medicine compound and Chinese medicine.
- b) Promote international cooperation and exchanges, and jointly explore the role of TCM in global public health events.
- c) Establish and improve the guidelines and norms for TCM treatment of COVID-19.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Feng Yifan, Wang Di, The impact of COVID-19 on the global economy and China's response[C].Urumqi, Xinjiang: School of Business Administration, Xinjiang University of Finance and Economics. 2021:255-256.
2. Khan AU, Proma AA, Akter M, Rahaman MM, Das S. A Review on Coronavirus Disease (COVID-19) Epidemic Threat for Global Healthin2020.American Journal of Microbiological Research, 2020:8(2):57-62. DOI:10.12691/ajmr-8-2-3.
3. Chen Jing, help protest the "side" of TCM [C]. The People's Political Consultative Conference. 2022:1-2.
4. Li Haoran, Xiong Yimin, discussed the similarities and differences between the clinical manifestations, imaging characteristics and TCM knowledge of COVID-19and SARS [C]. Chengdu, Sichuan: Clinical Medical College of Chengdu University of Traditional Chinese Medicine, Clinical Medical College of Beijing University of Traditional Chinese Medicine. 2020:7-10.
5. Khan AU, Ema IJ, Afsana AS, Khan AU, Zannaty A, Faruk MF and Rahman S. Effects of Coronavirus Disease (COVID-19) on Agricultural Sectors in Bangladesh: A Review. International Journal for Asian Contemporasy Research,2021:1(1):89-97. Available:https://www.ijacr.net/upload/ijacr/2021-12-1012.pdf.
6. Zhai Meng, Jiang Huifen, transmission route and prevention and protection of COVID-19[C]. Suzhou: The First Affiliated Hospital of Jiangsu University. 2020:4895-4898.
7. Li Haoran, Xiong Yimin, discussed the similarities and differences between the clinical manifestations, imaging characteristics and TCM knowledge of C OVID-19and SARS [C]. Chengdu, Sichuan: Clinical Medical College of Chengdu University of Traditional Chinese Medicine, Clinical Medical College of Beijing University of Traditional Chinese Medicine. 2020:7-10.
8. Fang Bangjiang, Wu Xinxin, Zhang Wen, Cao Min, Guo Quan, Huang Tingrong, Zhou Shuang, Li Jinhua, Ren Yi, Shao Zhong, Peng Wei, Liu Li, the theory and practice of the treatment of COVID-19 based on the "double solution" of tra ditional Chinese medicine disease theory [C]. Shanghai: Longhua Hospital affiliated to Shanghai University of Traditional Chinese Medicine, Shanghai: Institute of Acute and Critical Diseases of Shanghai University of Traditional Chine se Medicine, Xianyang, Shaanxi:. Epidemic Research Institute of Shaanxi University of Traditional Chinese Medicine, Hubei Huangshi: Huangshi Hospital of Traditional Chinese Medicine (Municipal Hospital of Infectious Diseases), Shanghai: Shanghai University of Traditional Chinese Medicine, Jiangxi Jiujiang: Jiujiang Hospital of Traditional Chinese Medicine, Chongqing: Chongqing Hospital of Traditional Chinese Medicine, Liaoning Fushun: Fushun Third Hospital. 2022:1-7.
9. Chen Yuku, Hu Yuanliang (Professor), focused on the ingredients of Traditional Chinese medicine and its compound antiviral and enhanced immune activities [C].Nanjing Agricultural University. 2010:1-111.
10. Khan AU, Khan AU, Roy R, Uddin M, Noreen S, Tasnim S,and Pane YS.A Review on the Positive and Negative Effects of COVID-19in the Human Life and Environment. Azerbaijan Medical Hournal. 2022:62(06):4181-4202.
11. Zhao Junning, Dai Ying, Hua Hua, treatment of "Novel Coronavirus pneumonia" (COVID-19) [C]. Chengdu: Sichuan academy of Chinese medicine, traditional Chinese medicine transformation medicine center, the state administration of traditional Chinese medicine, Chinese medicine quality biological evaluation key laboratory, Sichuan authentic herbal medicine system development engineering technology research center, traditional Chinese medicine research key laboratory in Sichuan province, Luzhou: Southwest medical university affiliated hospital of traditional Chinese medicine, Chengdu: Chengdu university of traditional Chinese medicine, Sichuan hospital, c Chengdu: Sichuan academy of sciences of combining traditional Chinese medicine and western medicine hospital of Sichuan province. 2020:2-12.
12. Mahundi, Lu Fangting, Tao Yanyan, M. Eric Gershwin, Lian Zhexiong, research progress on the immunomodulatory effect of Traditional Chinese medicine[C]. Hefei: Laboratory of Liver Immunology, School of Life Sciences, University of Science and

- Technology of China, Shanghai: Institute of Liver Disease, Shuguang Hospital, Shanghai University of Traditional Chinese Medicine, Shanghai, USA: University of California, Davis, Davis 95616. 2011:462-466.
13. Liu Yefang, Chen Xugui, Liang Fengfang, on the anti-inflammatory mechanism of acupuncture treatment of chronic respiratory diseases[C]. Chengde: The Third Affiliated Hospital of Chengdu University of Traditional Chinese Medicine / Hospital of Traditional Chinese Medicine of Chengdu, Chengdu: Department of Integrated Traditional Chinese and Western Medicine, West China Hospital of Sichuan University, Chengdu: School of Acupuncture and Massage of Chengdu University of Traditional Chinese Medicine. 2023:147-152.
 14. Yang Fumin, Xu Zhifang, Guo Yi, the prospect and significance of the immunomodulatory mechanism of acupuncture in the study of Chinese medicine meridians [C]. Tianjin: Research Center of Experimental Acupuncture and Moxibustion, Tianjin University of Traditional Chinese Medicine, Nanjing: Jiangsu Provincial Key Laboratory of Medical Molecular Technology, Nanjing University, Tianjin: College of Traditional Chinese Medicine, Tianjin University of Traditional Chinese Medicine. 2021:3434-3437.
 15. Zhou Jing, Zhang Yangpu, Luo Yujun, rehabilitation guidance of discharged patients with COVID-19[C]. Wuhan, Hubei: Hubei University of Traditional Chinese Medicine, Hubei Hospital of Traditional Chinese Medicine, Hubei Institute of Traditional Chinese Medicine, Hubei Hospital of Integrated Traditional Chinese and Western Medicine. 2020:249-254.
 16. Pan Fudong, Yang Yanhong, Yu Zongyan, children with cough oral solution assisted massage for the treatment of lung cancer secondary lung infection with gastrointestinal dysfunction clinical observation [C]. Chengde, Hebei: Chengde Medical College, Qinhuangdao First Hospital, Xi'an Tangdu Hospital. 2013:77-78.
 17. Liu Meng'an, Qi Chuanhou, the research status on the influence of massage on the blood circulation system [C]. Binzhou Hospital Journal. 1989:80-83.
 18. Luan Cail, Yu Lianjuan, bleeding therapy combined with cupping therapy intervened in 37 cases of facial paralysis [C]. Bright Traditional Chinese Medicine. 2023,2398-2399.
 19. Gong Guosheng, Wang Weiping, Discussion on the clinical application of TCM external treatment for COVID-19[C]. Shiyan, Hubei: Xiyuan Hospital, Rehabilitation Department of Traditional Chinese Medicine. 2020,41-42.
 20. Khan AU, Noreen S, Tasnim S, Khan AU, Pane YS. Design Telemedical Systems in Control of Pandemics Like COVID-19. In: Mittal M, Battineni, G. (eds) Information and Communication Technology (ICT) Frameworks in Telehealth. TELe-Health. Springer, Cham; 2022. DOI:https://doi.org/10.1007/978-3-031-05049-7_9
 21. Cao Xiaoyan, Liao Kaiming, Lin Jiangyan, TCM diagnosis and treatment of COVID-19, and see the modernization process of TCM disease science [C]. Fujian: Longyan People's Hospital. 2022:102-109.

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