

Case Report

Journal of Gynecology & Reproductive Medicine

The Effectiveness of Acupuncture in The Treatment of Post COVID-19 Condition: A Retrospective Study

Xiangping Peng 

L.Ac., Ph.D., M.Sc, Acuenergie Clinic (Canada)

*Corresponding author

Xiangping Peng, L. Ac, Ph.D., M.Sc, Acuenergie Clinic (Canada)

Submitted: 13 Jun 2022; Accepted: 24 Jun 2022; Published: 07 Jul 2022

Citation: Xiangping Peng. (2022). The Effectiveness of Acupuncture in The Treatment of Post COVID-19 Condition: A Retrospective Study. *J Gynecol Reprod Med*, 6(3), 106-109.

Abstract

Objective: To demonstrate the effectiveness and safety of acupuncture in the treatment of post COVID-19 condition (also called long COVID) in 85 cases in eastern Canada.

Method: The condition of 85 patients with long COVID was analyzed retrospectively based on their clinical symptoms, diagnosis and classification. 85 cases were divided into 4 categories according to the main symptoms. The number and percentage of clinical symptoms were shortness of breath and general fatigue (35 cases, 41%); body pain (26 cases, 31%); brain fog (17 cases, 20%); and irregular menstrual cycle (7 cases, 8%). 85 patients received acupuncture weekly for 8 to 12 consecutive weeks (from June 2020 to Dec 2021), to tonify lung and kidney qi and strengthen spleen and stomach qi. The acupuncture points used were on the meridians of lung, kidney, spleen, stomach, bladder, the Ren (Conception) and the Du (Governing).

Results: Of the 85 patients, 72 cases were clinically cured, and 13 cases were ineffective. The rate of overall effectiveness was 85%.

Conclusions: Acupuncture restored the healthy functioning of the lungs, kidney, spleen and brain; significantly decreased the symptoms of post COVID-19 condition; improved the patient's physical condition and quality of life; and enabled patients to go back to work.

Keywords: Post COVID-19 condition, Long COVID, Acupuncture, TCM

Introduction

Since the WHO announced the outbreak and subsequent pandemic of COVID-19 on March 12, 2020, the total number of cases of COVID-19 in Canada is 3,842,184 and the total number of deaths is 40,628 as of May 20, 2022 [1, 2]. According to the Public Health Agency of Canada, when people still show symptoms of COVID-19 for weeks or months after their initial recovery, this is called post COVID-19 condition, which is also known as long COVID [3]. The WHO stated that post COVID-19 condition occurs in individuals with a history of probable or confirmed SARS CoV-2 infection, usually 3 months from the onset of COVID-19, with symptoms that last for at least 2 months and cannot be explained by another diagnosis [4]. The most common symptoms of post COVID-19 condition, that we know of, in adults include: fatigue, memory problems, sleep disturbances, shortness of breath, anxiety and depression, general pain and discomfort, difficulty thinking or concentrating, and posttraumatic stress disorder (PTSD). There have been reports of more than 100 symptoms or difficulties with everyday activities. About 80% of adults reported 1 or more symptoms in the short term (4 to 12 weeks after their initial COVID-19 infection).

About 60% reported 1 or more symptoms in the long term (more than 12 weeks after their initial COVID-19 infection). And 10% said that they were also unable to return to work in the long term [3]. Symptoms such as persistent fatigue, breathlessness, brain fog, and depression have debilitated millions of people globally. Long COVID is a modern medical challenge [5].

General Information

Data was collected from 85 patients with post COVID-19 condition in Montreal at Acuenergie Acupuncture Clinic from June 2020 to December 2021. These 85 cases were divided into 4 categories according to the main symptoms. The number and percentage of clinical symptoms were shortness of breath and general fatigue (35 cases, 41%); body pain (26 cases, 31%); brain fog (17 cases, 20%); and irregular menstrual cycle (7 cases, 8%). The age of the patients ranged between 25 and 65, and the breakdown of case distribution according to age range was as such: age 25 to 35, 15 cases; age 36 to 45, 29 cases; age 46 to 55, 24 cases, and age 56 to 65, 17 cases. There were 37 cases of men and 48 cases of women. The average age was (44.54 ± 10.39) years.

Diagnostic Criteria

The diagnostic criteria of Western medicine refer to the clinical definition and symptoms of post COVID-19 condition that was published by the WHO on October 6, 2021 [4]. The diagnostic criteria of traditional Chinese medicine are taken from the book Traditional Chinese Medicine Diagnostics (2nd Edition) [6].

Evaluation Criteria

The evaluation criteria were based on the Criteria for Efficacy of Clinical Diseases and Syndrome Diagnosis in Traditional Chinese Medicine, according to which ‘cured’ refers to the disappearance of clinical symptoms, and ‘ineffective’ refers to the absence of significant changes in clinical symptoms [7]. The total rate of clinically cured patients = the number of patients cured / total number of patients × 100 %.

Treatment Methods

85 patients received acupuncture weekly for 8 to 12 consecutive weeks, to tonify lung and kidney qi and strengthen spleen and stomach qi. The acupuncture points used were on the meridians of the lung, kidney, spleen, stomach, bladder, Ren (Conception) and Du (Governing). The tonification technique was used for needling. Disposable sterile needles, size 0.25x25mm and 0.30x75mm were used.

Results

Of the 85 patients, 72 cases were clinically cured, and 13 cases were ineffective. None of them were infected with Covid-19 a second time. The rate of overall effectiveness was 85%.

Table 1: Outcomes of the 85 cases (n (%))

Groups	Number of cases	Clinically cured	Ineffective	Second infections of COVID-19	Total rate of clinically cured
Shortness of breath and general fatigue	35	31	4	0	31 (85.71%)
Body pain	26	22	4	0	22 (84.62%)
Brain fog	17	14	3	0	14 (82.35%)
Irregular menstrual cycle	7	5	2	0	5 (71.42%)
Total	85	72 (84.71%)	13 (15.29%)	0	72 (84.71%)

Discussion

Traditional Chinese Medicine (TCM) etiology and pathogenesis

From the perspective of TCM etiologies and pathologies, COVID-19 is caused by the invasion of the body by Cold-Damp with Toxins, which is primarily located in the lungs and spleen, and can involve the stomach and large intestine as well [8]. Post COVID-19 condition belongs to the category of “deficiency” in TCM theory. The TCM etiologies and pathologies for this stage were qi deficiency in the lungs and in the spleen. Various pathogens cause the deficiency of qi and blood in the viscera of the human body [9]. Qi deficiency can cause blood stagnation in certain viscera. If blood stasis is in the heart, it can cause tightness or pain in the chest; if blood stasis is in the lungs, it can cause chest pain, asthma, and hemoptysis; if blood stasis is in the liver, it causes hypochondral pain and symptomatic lumps; if blood stasis is in the kidneys, it can lead to urinary incontinence, and renal insufficiency.

Wang Qishi, a physician during the late Ming Dynasty, was renowned for his treatise *Differentiation Theory on Original Asthenia Syndrome* (in Chinese Li Xu Yuan Jian理虚元鉴) [10]. Wang proposed the theory that “treating deficiency is based on three bases and two governors”. According to this, the three bases are the lungs, spleen and kidneys and the two governors are yang deficiency, belonging to spleen disorder, and yin deficiency, belonging to lung disorder. Wang emphasized that in order to treat deficiency syndrome, two basic organs have to be taken into consideration, the lungs and the spleen. Physiologically, he believed that “the lungs are the heaven of the five internal organs”, “the spleen is the mother of all the bones” and “the kidneys are the root of life”. Pathologically, Wang believed that the lungs and spleen are supreme. He believed that yang defi-

ciency governs the spleen, and yin deficiency governs the lung. As for the method of treatment, Wang believed that treating the lungs first cleaned and protected the lungs, and that treating the spleen first nurtured the stomach. For those with yin deficiency, it is necessary to nourish the lungs and nourish the source of qi, and for those with yang deficiency, it is necessary to nourish the spleen and stomach, and reinforce the central energy. He especially emphasized the importance of the spleen and stomach. Wang Qishi's treatise played an important role in guiding doctors in treating clinical chronic consumptive diseases. His theory of deficiency provides a theoretical reference for the TCM treatment of patients with post COVID-19 condition during convalescence.

Acupuncture Theory and Acupoints

Acupuncture, as a branch of Traditional Chinese Medicine (TCM), has been used for 3000 years. During the pandemic of Covid-19 in Wuhan in March 2020, acupuncture played a vital role in fighting the epidemic, and consequently, proved that acupuncture is effective in the prevention and treatment of COVID-19 in the Fangcang Hospitals [11]. According to the document *Guidance for acupuncture and moxibustion interventions on COVID-19* (second edition), published by the Chinese Association of Acupuncture-Moxibustion in March 2020, the intervention was divided into three phases: medical observation phase (suspected cases), clinical treatment phase (confirmed cases), and convalescence phase. In the convalescence phase, the main acupoints used were PC6 (Neiguan), ST36 (Zusanli), RN12 (Zhongwan), ST25 (Tianshu), and RN6 (Qihai); back-shu points of five organs are BL13 (Feishu), BL15 (Xinshu), BL17 (Geshu), BL20 (Pishu) and BL23 (Shenshu). The purpose of an intervention with acupuncture during the convalescence phase is to remove the residual virus, restore vital qi, and restore the

functions of the lungs and spleen. In addition to the above acupoints, other specific acupoints should be used for patients who present the following symptoms: if patients present with obvious pulmonary symptoms such as chest tightness, fatigue, shortness of breath, then acupoints RN17 (Danzhong) and LU1 (Zhongfu) should be used; those with obvious spleen-stomach symptoms such as anorexia and diarrhea, acupoints RN13 (Shangwan) and SP9 (Yinlingquan) should be added; for those with dry mouth and obvious thirst, use acupoints KID3 (Taixi) and SJ4 (Yangchi); for those with obvious heart palpitations, use BL15 (Xinshu) and BL14 (Jueyinshu); for those with excessive sweating, use LI4 (Hegu) and KID7 (Fuliu); for those with insomnia, use HT7 (Shenmen), EX-HN3 (Yintang) and N-HN 54 (Anmian), and KID1 (Yongquan); for those with a cough with phlegm, use ST40 (Fenglong) and Ex-B1 (Dingchuan).

Clinical Case Studies

Four clinical cases were chosen to provide a reference for the treatment of post COVID-19 condition in the convalescence phase.

Case 1

Female, 49 years old, a physiotherapist and triathlon enthusiast. First presented on January 16, 2021. Chief Complaint: fatigue and shortness of breath 10 months after recovery from COVID-19; she lost the ability to work and exercise. Her main symptoms were extreme fatigue during the day, especially after lunch; physical strength dropped significantly, shortness of breath when moving, and inability to walk independently for half an hour. She also had anorexia, tightness in her chest, occasional headaches, a tight neck, heart palpitations, dizziness, decreased memory and concentration, insomnia, anxiety, depression, cold hands and feet, frequent urination at night, and low libido. Her menstrual cycle was normal, but the quantity was low and pale. Her tongue was pale and white with teeth marks on both sides; and her pulse was thin and weak.

TCM Diagnosis

- Asthenia syndrome due to qi deficiency of the lungs, spleen and kidneys.
- Strategy of acupuncture: tonify the qi of the lungs, spleen and kidneys.

Acupoints

Group 1: RN17 (Danzhong), RN12 (Zhongwan), ST25 (Tianshu), and RN6 (Qihai), RN4 (Guanyuan), ST36 (Zusanli), SP6 (Sanyinjiao), KID3 (Taixi);

Group 2: DU20 (Baihui), BL13 (Feishu), BL15 (Xinshu), BL17 (Geshu), BL20 (Pishu), BL21 (Weishu) and BL23 (Shenshu). The two groups of acupuncture points were used alternately. Intervention and method

Intervention was with an electro-acupuncture device (model KWD-808I, brand Greatwall). The size of the needles used was 0.25×25mm. After disinfecting all points with a cotton ball dipped in alcohol, the order of inserting the needles was from the lower limbs to the abdomen and upper back, starting on the left side and finishing on the right side. Disposable sterile needles were used and were inserted perpendicularly in all points

to a depth 10 to 15mm using the tonification technique. After provoking De-qi sensations, the electro-acupuncture device was connected ipsilaterally to acupoints BL13, BL15, BL17, BL23, and set to a continuous wave at 2 Hz, the intensity of which was based on the patient's preference. Acupuncture points were needled bilaterally and alternately. The needles remained inserted for 30 minutes each session, and a TDP lamp was used on the abdomen and back. The frequency of treatment was once a week for 3 consecutive months.

Results: After 12 acupuncture treatments for three months, the patient's overall health improved (better energy, good mood, deeper sleep, and a normal appetite). Her physical strength recovered. She returned to work at the end of April 2021.

Case 2

Male, 41 years old, a financial analyst and amateur mountaineer. First presented on March 9, 2021. Chief Complaint: Pain all over the body and fatigue more than 3 months after recovery from COVID-19. Main symptoms: muscles tingled all over his body, stiffness and discomfort in the neck and back, unbearable joint pain in fixed locations, accompanied by pain, dizziness, insomnia, irritability, depression, inability to work; out of breath after climbing a small slope. His tongue was dark purple. His pulse was choppy and wiry.

TCM Diagnosis: muscle-pain syndrome due to qi stagnation and blood stasis. Strategy for electro-acupuncture: promote the circulation of qi and blood, dredge and unblock the meridians and collaterals, relieve the pain.

Acupoints And Methods

Intervention was with an electro-acupuncture device (model KWD-808I, brand Greatwall). The size of the disposable sterile needles used was 0.30×75mm. The method of needling used was acupoint-to-acupoint penetrative needling (AAPN). The selected 4 pairs of acupoints were LI11 (Quchi) to HT3 (Shaohai), SJ5 (Waiguan) to PC6 (Neiguan), GB34 (Yanglingquan) to SP9 (Yinlingquan), BL60 (Kunlun) to KID3 (Taixi).

After disinfecting all points with a cotton ball dipped in alcohol, four needles were inserted at 90° to the skin, and penetrated from one acupoint on the lateral side to another acupoint on the medial side. After provoking De-qi sensations, the electro-acupuncture device was connected to 4 needles and set to a continuous wave at 2 Hz. The duration of each session was 30 minutes, and a TDP lamp was used on the belly. The frequency of treatment was twice a week for 6 consecutive weeks.

Results

After twelve acupuncture treatments for one and half months, the patient's pain disappeared, his sleep improved, and his physical strength recovered. He went back to work in early May 2021.

Case 3

Male, 25 years old, a software engineer. He first presented on April 13, 2021. Chief complaint: Brain fog 1 month after his recovery from COVID-19. Main Symptoms: cloudy-headed feeling, sluggish thinking, confusion, forgetfulness, lack of fo-

cus, poor concentration, confusion, insomnia and headaches. He went to bed late (after midnight) and urinated frequently during the night. His tongue was light red and slightly darker on the sides with a white coating. His pulse was deep and thin.

TCM diagnosis: chronic fatigue due to deficiency of kidney essence.

Strategy for electro-acupuncture: invigorate kidney qi and essence.

Acupoints

DU20 (Baihui), EX-HN1 (Sishencong), DU24 (Shenting).

Acupoints and methods

Intervention was with an electro-acupuncture device (model KWD-808I, brand Greatwall). The size of the disposable sterile needles used was 0.25×25mm. After disinfecting all points with a cotton ball dipped in alcohol, the needles were inserted at 30° to the scalp. After provoking De-qi sensations, the electro-acupuncture device was connected to the 6 needles and set to a continuous wave at 2 Hz. The duration of each session was 30 minutes. The frequency of treatment was three times a week for 4 consecutive weeks.

Results

After twelve acupuncture treatments in one month, the patient's brain fog disappeared, his sleep improved, and his memory and concentration recovered.

Case 4

Female, 32 years old. She first presented on July 3, 2020. Chief Complaint: absence of menstruation for 3 months after recovery from COVID-19. Main Symptoms: dizziness, palpitations, shortness of breath, fatigue, loss of appetite, abdominal distension, especially after eating, loose stools, heaviness of body, sleepy after meals, pale complexion, hair loss. Her tongue was pale with a white coating, and her pulse was deep and slow. TCM diagnosis: amenorrhea due to a deficiency of qi and blood of spleen and stomach, dystrophy of Chong and Ren meridians.

Strategy for acupuncture: Strengthen the spleen and nourish the stomach; nourish Chong and Ren meridians.

Acupoints

Group 1

RN12 (Zhongwan), ST25 (Tianshu), RN6 (Qihai), RN4 (Guanyuan), EX-CA1 (Zigong), ST36 (Zusanli), SP10 (Xuehai), SP6 (Sanyinjiao), KID12 (Dahe), KID3 (Taixi). The size of the disposable sterile needles used was 0.25×25mm. The needles were inserted perpendicularly in all points to a depth 10 to 15mm using the tonification technique.

Group 2

Baliao (BL31, BL32, BL33, BL34)

Intervention was with an electro-acupuncture device (model KWD-808I, brand Greatwall). The size of the disposable sterile needles was 0.30×75mm. The needles were inserted perpendicularly in all points to a depth 50mm using the tonification technique. After provoking De-qi sensations, the electro-acu-

puncture device was connected to the 8 needles and set to a continuous wave at 2 Hz. The two groups of acupuncture points were used alternately. The duration of each session was 30 minutes. The frequency of treatment was once a week for 6 consecutive weeks.

Results

After 6 acupuncture treatments, her menstruation resumed in mid-August, and pregnancy was confirmed on September 18. A healthy baby girl was successfully delivered on May 28, 2021.

Conclusions

COVID-19 is a once-in-a-century health crisis. Acupuncture is not only effective in treating post COVID-19 condition, but it is also effective in preventing recurrence after recovery. Acupuncture helps patients recover their health, enhances their physical condition and improves their quality of life.

Acknowledgements

I would like to acknowledge and thank Andrea Saunderson for reviewing the English in this article.

References

1. Coronavirus disease (COVID-19) pandemic.
2. COVID-19 daily epidemiology update. Accessed May 22, 2022.
3. Post COVID-19 condition. Accessed May 22, 2022.
4. A clinical case definition of post COVID-19 condition by a Delphi consensus, 6 October 202.
5. Lancet, T. (2021). Understanding long COVID: a modern medical challenge. *Lancet* (London, England), 398(10302), 725.
6. Deng Tietao (2008) *Diagnostics of Traditional Chinese Medicine* (Second Edition). Beijing: People's Health Publishing House.
7. Wang Jingjing, Long Junjie (1993) *Criteria for diagnosis and efficacy of clinical syndromes in traditional Chinese medicine*. Hunan Science and Technology Press.
8. Wang Lihua, Shi Linbo, Ding Zhaohui (2021) Clinical research and thinking of traditional Chinese medicine in treating 40 cases of Covid-19 in stages, *Journal of Jiangxi University of Traditional Chinese Medicine*, 33(5), 2021.
9. Xu Jun, Qi Lu, Cheng Liangbin. Talking about the prevention and treatment strategies of patients with Covid-19 during the convalescence period from the theory of consumptive labor in Lixuyuanjian. *World Science and Technology - Modernization of Traditional Chinese Medicine*.
10. Wang Qishi. *Differentiation theory on Original Asthenia-syndrome* Beijing: People's Health Publishing House, 2005.
11. Sun P, Zhou WS (2020) Acupuncture in the Treatment of COVID19: An Exploratory Study. *J Chin Med*, 6: 1-7.
12. Chinese association of Acupuncture and Moxibustion, "Guidance for acupuncture and moxibustion interventions on COVID-19 (Second edition)".

Copyright: ©2022 Xiangping Peng. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.