



RESEARCH ARTICLE

Characterization of patients treated with acupuncture after COVID-19 virus infection

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Abstract

The coronavirus (COVID-19) pandemic became the greatest global public health crisis nowadays and currently there are no proven effective therapies. The virus has strong pathogenicity and infectivity and the most convincing way of transmission is through inhalation of the infectious aerosols. 80% of the patients who came to our clinic for Traditional Chinese Medicine (TCM) and acupuncture for treatment in the last 6 months, came due to residual effects of the coronavirus infection. The aim of this study is to show statistically how many patients reported for post-coronavirus treatment in the clinic and due to which consequences and reasons came for treatment. In this research were chosen to be analyzed 21 patients, 6 male and 15 female, on age from 19 to 65, all treated for health consequences caused by covid-19 infection in February, 2021. All patients are referred to the clinic within a week due to health problems left by coronavirus infection. According to the analyzed data, it can be concluded that all patients infected with coronavirus have health consequences that occupy the body for more than 6 months, regardless of whether the symptoms were mild, moderate or severe. Most patients had the infection in December 2020. Most of the patients had mild symptoms. The biggest problem after the infection is the body pain, exhaustion of the body, reduced energy and tiredness.

Keywords: covid-19, corona virus, acupuncture, traditional Chinese medicine, statistics

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1 | INTRODUCTION

The coronavirus (COVID-19) pandemic became the greatest global public health crisis

nowadays and currently there are no proven effective therapies. The virus has strong pathogenicity and infectivity and the most convincing way of transmission is through inhalation of the infectious aerosols. The virus is very similar to the severe acute respiratory syndrome coronavirus (SARS-CoV) in its clinical spectrum, pathogenicity and epidemiology.

The most common symptoms and clinical characteristics are: cough, fever, fatigue, headache, chills, shortness of breath, sore throat, myalgia, nausea, diarrhea, lack of appetite, loss of smell and taste and other. The virus can affect the upper respiratory tract (throat, nose and sinuses) or the lower respiratory tract (trachea and lungs). The disease may also progress and lead to a serious lung inflammation, cardiac and renal problems, acute respiratory distress syndrome, especially in older patients and with comorbidities like heart failure, diabetes mellitus or hypertension. In general, mortality rate is higher in the older population. They are more vulnerable to the virus and require more attention.

The disease may range from asymptomatic to fatal. The incubation period of the disease lasts 3 to 14 days. Some patients that have progressed disease to difficulty in breathing, hypoxemia or acute respiratory distress syndrome may need mechanical ventilation.

Due to lack of specific antiviral vaccines and therapeutics, the major therapeutic strategy is adjuvant therapy and administration of antivirals, corticosteroids, broad-spectrum antibiotics and convalescent plasma.

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Traditional Chinese Medicine (TCM) combined with Western medicine can relieve the symptoms, absorb the lung infiltration and enhance life quality in coronavirus patients.

Acupuncture as part of the TCM can help in many ways in the treatment of coronavirus patients. Acupuncture can effectively relieve common symptoms as nausea, anxiety, fatigue, insomnia, leukopenia, vomiting, breathlessness, dyspnea, discomfort and other. The treatment effectively improves the physiological function and the quality of life of coronavirus. [1] [2] [3] [4]

2 | MATERIAL AND METHODS

In this research are included 21 patients, 6 male and 15 female, on age from 19 to 65, all treated for health consequences caused by covid-19 infection.

In the research were chosen to be analyzed the patients who were treated in February, 2021.

All patients were referred to the clinic within a week due to health problems left by coronavirus infection.

All patients have been previously treated at home or in hospital for coronavirus.

All patients have undergone 14-day quarantine.

All patients had a negative coronavirus test.

All patients were treated with acupuncture in a clinic for Traditional Chinese Medicine and acupuncture, by a doctor specialist in acupuncture. Treatments were made once a week, with duration of 30-45 minutes, in a closed room, on a room temperature. In the treatment were used fine sterile disposable needles with dimensions 0.25x25mm, manufactured by Wuijiang City Medical & Health Material Co., LTD. The duration of the treatment sessions in different in all patients. Treatments were performed most regularly according to all protocols.

Inclusion criteria – patients who were infected with coronavirus, patients who have negative coronavirus test, patients who have undergone 14-day quarantine, patients with mild, moderate and severe symptoms, patients treated at home and in hospital, children, elderly patients, nursing and pregnant women.

CHARACTERIZATION OF PATIENTS TREATED WITH ACUPUNCTURE AFTER COVID-19 VIRUS INFECTION

Exclusion criteria – asymptomatic patients, patients with other complications than coronavirus caused, patients who have never had coronavirus.

The aim of this study is to show statistically how many patients reported for post-coronavirus treatment in the clinic and due to which consequences and reasons came for treatment.

3 | RESULTS AND DISCUSSION

80% of the patients who came to our clinic for Traditional Chinese Medicine (TCM) and acupuncture for treatment in the last 6 months (September 2020 – February 2021), came due to residual effects of the coronavirus infection.

Of the 21 treated patients, 6 were male and 15 female. According to the research published so far, men are more at risk and have a higher mortality rates than women. However, man and women have the same prevalence of covid-19 infection. [5]

The patients were on age from 19 to 65. The patients were divided in 6 age groups. Most patients were on age from 40 to 50. The results are presented in table 1.

TABLE 1: Number of patients in each age group

Age group	Number of patients
<20	1
20-30	3
30-40	3
40-50	8
50-60	4
>60	2

According to the symptoms, the patients were divided into 3 groups: patients with mild, moderate and severe symptoms. There were 13 patients with mild symptoms, 6 with moderate and 2 with severe symptoms. The same results are presented in table 2.

TABLE 2: Groups of symptoms and number of patients in each group

Mild	Moderate	Severe
13 patients	6 patients	2 patients

Mild symptoms – cough, fever, sore throat, muscle pain, headache, loss of taste and smell, malaise, nausea, diarrhea.

Moderate symptoms – mild symptoms plus shortness of breath, dyspnea, abnormal chest imaging and saturation of oxygen (SpO₂) ≥94%.

Severe symptoms - saturation of oxygen (SpO₂) ≥94%, respiratory failure, multiple organ dysfunction and other.

There are also asymptomatic patients (not included in this paper), who test positive for coronavirus, but have no symptoms that are consistent with the virus.

At higher risk of progressing development of the severe symptoms are patients with certain underlying comorbidities including diabetes, cardiovascular disease, age of 65 years and older, chronic lung disease, cancer, obesity, pregnancy and other. [6]

According to the time when the disease occurred, the patients were divided into 4 groups. Most patients had the infection in December 2020 – 12 patients. The results are presented in table 3.

TABLE 3: Time period when the disease occurred

Period	Number of patients
April, 2020	1
September, 2020	1
October, 2020	1
November, 2020	5
December, 2020	12
January, 2021	1

According to the patient’s occupations, there were patients from different working sectors: bankers, auditors, students, retiree, programmers, professors, unemployed, principals and administrators.

According to which consequences and reasons the patients came for treatment in the clinic, according to their answers, they were divided into 12 groups. All those symptoms remained after the infection with the virus and after the onset of the active phase of the disease. Most of the patients came to the clinic because they had problems with tiredness, body pain, malaise, back pain and reduced energy. The results are presented in table 4.

The coronavirus infection causes variety of post symptoms that may last for more than 6 months in

TABLE 4: Reasons why the patients came for treatment after the coronavirus infection

Symptoms	Number of patients
Facial nerve paralysis	2
Tiredness, loss of energy	6
Loss of smell and taste	1
Pain in legs	2
Pain in jaw	2
Pain in the neck	2
Malaise	4
Back pain	4
Anxiety	2
Glycaemia	1
High blood pressure	2
Reduced fertility	1

one person. This conditions is called post-COVID syndrome. Most commonly reported symptoms are: chest pain, joint pain, fatigue, loss of taste and smell, depression, anxiety, insomnia, difficulty breathing and other. Most at risk of developing this syndrome are older patients (over age of 50), patients who experienced severe symptoms and patients who have other underlying health conditions.

No exact hypothesis has been confirmed as to why these permanent symptoms occur. In any case, they certainly affect the quality of life of patients. [7]

A follow-up study on the neurological and mental consequences of the coronavirus will be published soon.

4 | CONCLUSION

According to the analyzed data, we can conclude that all patients infected with coronavirus have health consequences that occupy the body for more than 6 months, regardless of whether the symptoms were mild, moderate or severe. The biggest problem after the infection is the body pain, exhaustion of the body, reduced energy and tiredness.

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Conflict of interest

The author have declared that no competing interests exist.

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Statement of Informed Consent

Written informed consent was obtained from the patient for their anonymized information to be published in this article.

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