

Post Covid-19 Finger Stiffness with Liver Contraction and Immediate Recovery with Acupuncture: Case Report

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ABSTRACT

Introduction: Many Covid-19 patients suffer from various aberrant inflammatory pathologies due to cytokine storm. Besides pharmacologic therapy, acupuncture therapy has been reported to be effective in treating inflammation. This case report shared one case of post Covid-19 patient with finger stiffness and liver contraction treated by acupuncture.

Methods: This is a case report of using acupuncture to treat post Covid-19 patient with finger stiffness and evidence of liver contraction based on ultrasound imaging. Evaluation is based on patient reported outcome measures (PROM) and ultrasound imaging of the liver.

Results: The patient is a female, 52 years old, suffering from post-Covid-19 finger stiffness and liver contraction as shown by ultrasound imaging. Clinical diagnosis based on traditional Chinese medicine (TCM) was liver blood deficiency pattern (ICD-11: SF54). Acupuncture therapy was done accordingly to soothe the liver Qi and replenish the liver blood deficiency. Soon afterwards, the stiffness was greatly relieved with simultaneous improvement in her liver volume.

Conclusion: Acupuncture therapy is effective for treating post Covid-19 patient with finger stiffness and liver contraction as shown in the aforementioned case.

Keywords: Covid-19; Finger stiffness; Liver contraction; Acupuncture

INTRODUCTION

The pandemic of Covid-19 has ravaged the world since 2019. There are still many unresolved questions regarding the pathogenesis of this disease and especially the reasons underlying the extremely different clinical course, ranging from asymptomatic forms to severe manifestations [1,2]. Much evidence indicate that the so called “cytokine storm” or uncontrolled over-production of soluble pro-inflammatory substances are responsible for an aberrant systemic inflammatory response, not limited to the respiratory distress syndrome [1-3], but also involving the locomotor system, so that rheumatologists are involved in the treatment [2]. In this article, we report a case of post Covid-19 patient with stiffness of the digits due to tendinitis, that was relieved with acupuncture without pharmacologic medication.

METHODS

This is a case report of a patient visiting our clinic seeking acupuncture treatment for her complaints. Besides routine four methods of clinical examination in TCM (traditional Chinese medicine), i.e. visual observation, hearing, smelling, anamnesis, and palpation, ultrasound examination of the upper abdomen was also performed upon this patient diagnosed as liver blood deficiency pattern. Besides, the evaluation of the therapy's results was made by patient reported outcome measures (PROM) [4,5].

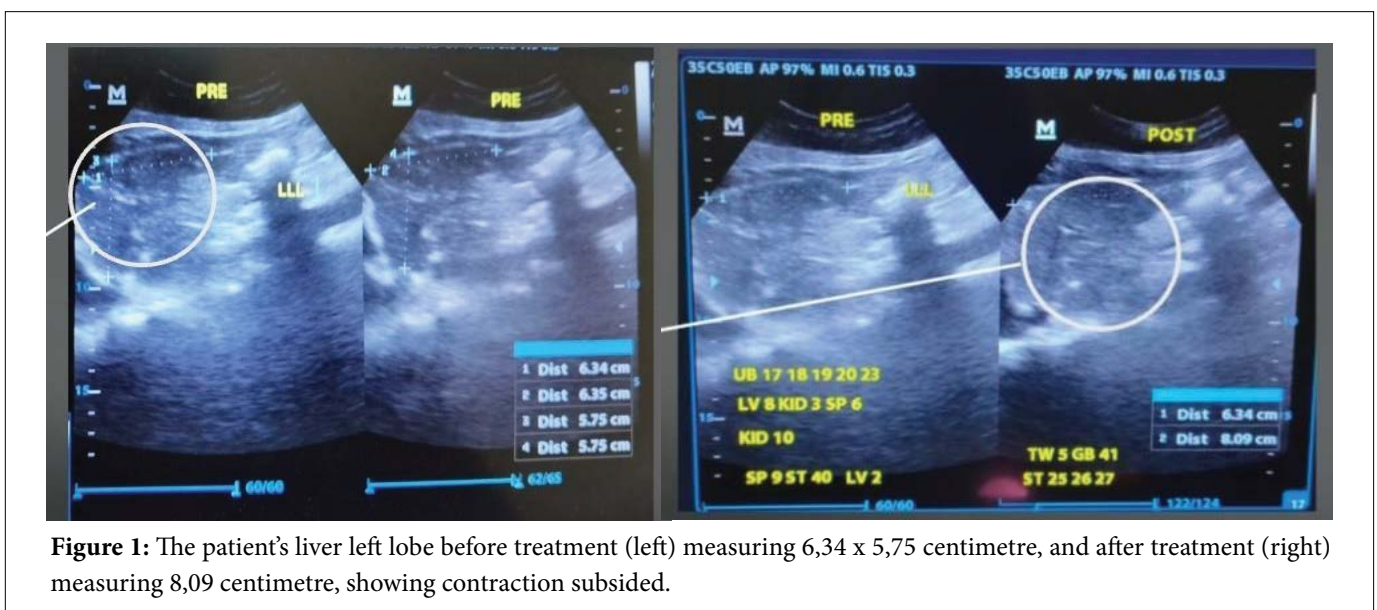
RESULTS

The patient in this case report was a female, BMI 27,3 ,age52 years, her chief complaint was all her fingers feeling stiff, painful when the fingers were moved or flexed. Besides,

she also complained of chest oppression, feeling hard in breathing. The complaints started about 10 months ago, after she had suffered from Covid-19 in January 2021, with mild symptoms, i.e. fever and body soreness. Besides the complaints, after the Covid-19 infection, her menstrual cycle stopped and her GERD (gastro-oesophageal reflux disease) symptoms worsened. She had no other comorbidities. Clinical examination revealed a pale and sallow complexion, pale, oedematous and bluish tongue with thick whitish coating, dark blotches (“blood stagnation”) seen in the pulmonary and liver area, the pulse was thin and wiry especially in the spleen and lung location. Her fingers were wooden stiff and the skin was lustreless. The diagnosis was determined as post-Covid-19 liver blood deficiency pattern (ICD-11: SF54). Ultrasound imaging of her upper abdomen showed contracted left lobe of the liver, measuring 6.34x5.75cm. After providing information of her condition and consent was given by the patient, acupuncture was done on the following acupoints: UB17, UB18, UB20, UB23, LR8, ST36, SP6, CV4, KI10; TE5, GB41, ST25, ST26, ST27, SP9, ST40, LV2; all bilaterally, except UB17, UB18, and UB19. The needles were retained for 40 minutes, with neutral manual manipulation every 10 minutes. After treatment, she reported considerable relief in breathing (VAS from 8 to 4), and the fingers stiffness also reduced significantly (VAS from 8 to 5) and became movable. The ultrasound image of the liver improved significantly, the left lobe of liver’s measurement became 8.09cm. Her tongue became less oedematous and more pinkish, dark blotches much less prominent and coating thinner. No adverse effects were reported by the patient (Figure 1).

DISCUSSION

The patient in this case report suffered from the sequel of Covid-19 infection, with the main symptom of finger stiffness, hardness in breathing, and signs of blood deficiency and blood stagnation. According to TCM theory, the stiffness of digits is related to the function of the liver system in regulating smoothness of Qi and nutrition supply to the tendons, also in charge of storing blood and regulating the volume of blood circulation [6]. External pathogens like wind and heat (carrying along the viruses) could bring about imbalance or dysfunction of Qi and blood, causing pain and spasm [6]. That is the pathogenesis of digital stiffness and liver contraction suffered by the patient in this report. Hence, the acupoints selected are mainly related to recover the normal function of liver and replenishing the deficiency in Qi and blood. Acupoints LR8 to replenish liver Yin, LR2 to clear liver heat, UB17 and UB18 to replenish blood and liver, UB20 to strengthen spleen as the source of Qi and blood, UB23 and KI10 to strengthen kidney as the source of essence and regulate menstruation. While CV4 is selected to strengthen Qi to treat amenorrhea; ST36 to harmonize and strengthen the spleen and stomach, and SP6 to strengthen the three foot-Yin channels of the liver, spleen, and kidney [6-8]; while TE5 and GB41 to improve motion and sensation of the finger stiffness [7-10]. Hence, the combination of acupoints addresses all problems suffered by the patient. Especially the effects on promoting the smooth flow of Qi and blood were immediately evident in the change towards normality in appearance of her tongue and the prominent reversal of her liver contraction shown by ultrasound imaging.



The interesting finding in this case is the evidence of swift improvement in liver blood storing capacity by acupuncture as shown in the ultrasound image that patient's liver contraction subsided. Besides, the alteration in consistency as shown by the improvement in echo-structure of the liver was also evident. The mechanism of those prominent improvement may be due to acupuncture could improve blood flow in peripheral arteries as shown by colour Doppler imaging [11,12]. With this initial evidence, it might be rational to explore further the role of acupuncture treatment in the management of patients with Covid-19, especially those with liver contraction of liver blood deficiency pattern.

CONCLUSION

This case illustrated that Covid-19 infection could bring about the sequel of finger stiffness of liver blood deficiency pattern and liver lobe contraction. Acupuncture treatment could reverse the finger stiffness and liver lobe contraction swiftly without any adverse reaction. This report entails further investigation of the role of acupuncture in Covid-19 management.

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AUTHORS' CONTRIBUTION

Pita Wulansari, medical acupuncturist in Centrum Clinic, Jakarta, treating the patient and providing data regarding the patient of the case report.

Willie Japaries, Dean and lecturer in TCM acupuncture and herbal therapy, Nalanda Buddhist and Traditional Healthcare College, in charge of composing the manuscript.

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Wijono Sukaputra Agussalim: Lecturer in TCM acupuncture, Nalanda Buddhist and Traditional Healthcare College, in charge of drafting the manuscript.

REFERENCES

1. Coperchini F, Chiovato L, Croce L, Magri F, Rotondi M (2020) The cytokine storm in COVID-19: An overview of the involvement of the chemokine/chemokine-receptor system. *Cytokine Growth Factor Rev* 53: 25-32.
2. Soy M, Keser G, Atagündüz P, Tabak F, Atagündüz I, et al. (2020) Cytokine storm in COVID-19: Pathogenesis and overview of anti-inflammatory agents used in treatment. *ClinRheumatol* 39: 2085-2094.
3. Lee C, Choi WJ (2021) Overview of COVID-19 inflammatory pathogenesis from the therapeutic perspective. *Arch Pharm Res* 44: 99-116.
4. <https://www.gov.uk/guidance/patient-reported-outcomes-and-experiences-study>
5. Weldring T, Smith SM (2013) Patient-Reported Outcomes (PROs) and Patient-Reported Outcome Measures (PROMs). *Health Serv Insights* 6: 61-68.
6. Tong ZH (2018) Considerations of Acupuncture Protocol for Treating Heart Blood Deficiency-Patterned Heart Diseases (75%). *Open Acc J Comp & Alt Med* 1.
7. Fukutome T (2018) Acupuncture point injection markedly improved sensory symptoms and motor signs in 2 patients with restless legs syndrome. *Clin Case Rep* 6: 1353-1357.
8. Xia Q (2016) Section 3 Fourteen Meridians. In: Wang Xinhua, ed. *Textbook of traditional Chinese medicine*. Science Publisher. Beijing: 244-272.
9. Chen J, Wang J, Huang Y, Lai X, Tang C, et al. (2014) Modulatory effect of acupuncture at Waiguan (TE5) on the functional connectivity of the central nervous system of patients with ischemic stroke in the left basal ganglia. *Plos one* 9: e96777.
10. Xing JJ, Zeng BY, Li J, Zhuang Y, Liang FR (2013) Chapter Three-Acupuncture Point Specificity. *International Review of Neurobiology* 111: 49-65.
11. Takayama S, Watanabe M, Kusuyama H, Nagase S, Seki T, et al. (2012) Evaluation of the Effects of Acupuncture on Blood Flow in Humans with Ultrasound Color Doppler Imaging. *Evidence-Based Complementary and Alternative Medicine* 2012: 513638.
12. Liu QR, Zuo Y, Lu J (2006) The effect of pestle and acupuncture on cerebral insufficiency of blood supply to cerebral atherosclerosis and its clinical effect. Attachment: 282 case reports. *Journal of Chengdu University of Traditional Chinese Medicine* 29: 1-4.