



Clinically Improvement in a Case of COVID-19 with Gastrointestinal Manifestations through Using Natural Therapy Based on Persian Medicine: A Case Report

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Received: 2 Apr 2020

Revised: 11 Jul 2020

Accepted: 25 Jul 2020

Abstract

In addition to respiratory symptoms as the most common manifestations of COVID-19, GI tract symptoms may occur in some patients, as well. These symptoms could be disabling and annoying and supportive treatments are required to control them. Some natural remedies based on Persian medicine could be effective to fast control of GI manifestations of COVID-19 disease through Food modification and using some medicinal plants and Life style correction. This paper reports a case of COVID-19 patient with GI complications which has been treated by using Persian Medicine recommendations.

Keywords: Natural therapy; Persian medicine; COVID-19; Nausea; Gastrointestinal manifestations

Introduction

Although respiratory symptoms are the most important manifestations of COVID-19, non-respiratory manifestations of this disease have recently attracted attention. Jin et al. reported that gastrointestinal (GI) tract symptom (nausea, vomiting and diarrhea), may occur among 11.7 % of patients and about 23% of them showed severe/ critical types, which is signifi-

cantly higher than those without GI symptoms (8.14%). According to their study, diarrhea was the most common GI symptom, followed by vomiting and nausea as the second and the third symptoms [1]. In this regard, Cascella et al. reported that 81% of confirmed COVID-19 patients show mild disease, and GI manifestations of COVID-19 are in those with the mild symptoms [2].

Citation: Siahpoosh MB. Clinically Improvement in a Case of COVID-19 with Gastrointestinal Manifestations through Using Natural Therapy Based on Persian Medicine: A Case Report. Trad Integr Med 2020; 5(3): 114-117.

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The treatment for mild disease is mainly supportive. Also, the decision to monitor a patient in the inpatient or outpatient setting should be made on a case-by-case basis [3]. Here, a confirmed case of COVID-19 with GI manifestations whose symptoms were controlled in a short time through natural remedies according to Persian Medicine (PM) has been introduced.

Case Presentation

A 36-year-old man with no underlying disease and B+ blood group, referred to a clinic in Qazvin, Iran, in March 18th, 2020 for fever, chill and myalgia. He received some supportive treatment. He became a little better but not cured completely and again he felt the same symptoms plus nausea 6 days later. Due to the persistence of the symptoms, pulmonary CT scan was done in day 7, (March 25th) which pointed to COVID-19 infection typically (Fig. 1).

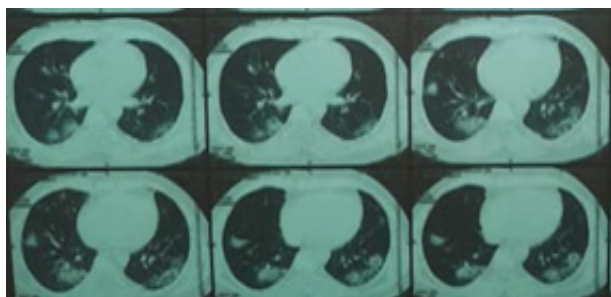


Figure 1: CT features of COVID-19 infection in the presented case

Chloroquine phosphate 200 mg twice a day, diphenhydramine compound (Diphenhydramine HCL 12.5 mg/5ml, Ammonium Chloride 125mg/5ml) 5 ml before meal, naproxen 200 mg twice a day, omeprazole 20 mg twice a day, chewable Vit C tablet 250mg daily, for 5 days, were prescribed for him by an internist. Two

days later (March 27th), fever and chill were relieved; however, myalgia was continued, and loss of appetites, as well as mild dry cough appeared, and the nausea got worse. In spite of rehydration, Vit B6 (50mg/2ml) injection, diphenhydramine compound administration, and even a single dose of ondansetron (2mg/ml) injection, not only nausea remained unresponsive to treatment, but also vomiting was added. In March 29th, some natural remedies based on PM were recommended by a PM specialist to control GI manifestations and myalgia, which were the main complaints of the patient. The recommendation included food modification and using some natural medications, aromatherapy, having enough sleep, and controlling the stress as explained bellow.

1. Food modification:

- a. Decreasing the amount of food in each meal and eating in several times
- b. Avoiding sweet foods
- c. Avoiding hot liquids
- d. Watery vegetable soup with fresh lemon juice
- e. Mutton meat extract cooked with Omani lemon
- f. Diluted honey syrup with fresh lemon juice (Drink sip by sip)
- g. Slowly sucking on fresh lemon and salt, during nausea
- h. Chewing mint gum

2. Aromatherapy:

- a. Smelling fresh lemon
- b. Smelling boiled orange peel, chamomile and thyme

3. Avoiding awakening night and going to bed at 10 o'clock

4. Controlling stress:

- a. Avoiding bad news
- b. Having enough sleep
- c. Drinking borage and lavender decoction at bed time

After 2 days, nausea and myalgia were completely improved but a mild stomachache occurred. So eating cooked quince fruit and drinking mint decoction with plantain seed both twice a day, were prescribed. Two days later, there was neither nausea nor stomachache and patient was able to eat anything with no myalgia and anorexia. Despite improving symptoms within 4 days, it was recommended to continue the instructions for another ten days. The patient was followed up for 14 days. No GI, respiratory and other symptoms were reported by patient during this time.

Discussion

Although GI symptoms of COVID-19 disease, in comparison with respiratory manifestations, are less common and varies significantly among different study populations [4], they are sometimes disabling and annoying. On one hand, some effective GI drugs may have dangerous drug interactions with routine COVID-19 drugs. For example, both ondansetron as an antiemetic and chloroquine phosphate can result in irregular heartbeat due to prolonged QT interval [5]. On the other hand, supportive therapies in GI manifestations in order to prevent dehydration and electrolyte imbalance may be as important as oxygen therapy for patients suffering from respiratory manifestations. Impairing food intake and

absorption following nausea, vomiting and diarrhea due to COVID-19 should encourage the physicians to control this condition and to prescribe a proper diet. Of course, offering a good nutritional status is absolutely necessary in each infectious disease [6]. According to PM, to control a disease, the first step is food modification in which considering both disease and patient, some orders are recommended. For nausea, vomiting and stomachache, tonifying the stomach through decreasing amount of food and using stomach tonics are known as the essential approaches. Mutton meat, lemon (*Citrus limon* L.), quince (*Cydonia oblonga* Mill.), and mint (*Mentha X piperita* L.), have tonic effects for stomach. Another important step is to modify life style such as controlling the stress and having enough and appropriate sleep. Going to bed early plays an important role in both control of stress and sleep adjustment [7,8]. Avicenna believed that adequate and deep sleep at night is an essential factor for proper food digestion and enriching digestive system [7]. Lavender (*Lavandula stoechas* L.) and Iranian borage (*Echium amoenum* Fisch. & C.A.Mey.) have anxiolytic and pain relieving effects. They also act as brain tonics and can regulate sleep [7,8,9]. Furthermore, medicinal plants such as quince, mint, citrus fruits, plantain (*Plantago major* L.), thyme (*Zataria multiflora* Boiss), chamomile (*Matricaria chamomilla* L.), lavender, and borage, as well as honey, are not only effective on both GI and respiratory disorders [10], but also exhibited immunomodulatory, antioxidant, antimicrobial and even antiviral effects in several

studies [11,12] whether through oral or nasal consumption [13]. In phytotherapy, lavender, borage, and chamomile are considered as anxiolytic herbs, as well [10], which is in line with PM. In conclusion, due to the presence of drug interactions between COVID-19 routine drugs and some supportive drugs on one hand, and probable some complications due to GI manifestations such as dehydration and electrolytes imbalance, in addition to the patient intolerance to symptoms on the other hand, using easy, cheap, available and low risk natural products and methods seems to be reasonable. However, to use herbal drugs, paying attention to some points is important. There is also a great risk of herb-drug interaction which makes physicians not to be willing to use natural products in critical patients. Drug interaction between plantain and digoxin [14], and chamomile with warfarin [14,15] are some examples. So, it is necessary for physicians to be familiar with herbs and their effectiveness, their indications and contraindications, their drug/food interactions and their complications if they want to prescribe herbal drugs. It should be considered that the clinical safety and efficacy of natural therapy and medicinal plants to control COVID-19 infection and its complications should be examined through further human studies and clinical trials.

Conflict of Interest

Author declares no conflict of interest.

Acknowledgement

None.

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