COVID-19 Misdiagnosis Due to Atypical Symptoms: A Case Report

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Abstract- COVID-19 has recently become a pandemic. Early diagnosis and the transmission chain cutting off are critical keys to controlling this disease and stopping its spread. In this case report, the significance of proper and on-time diagnosis is discussed. Misdiagnosis of COVID-19 may lead to delay in early diagnosis of the disease. A 78-year-old man with the chief complaint of dark stool and constipation was admitted. Based on the preliminary complaints of the patient, the emergency medical specialist transferred him to the internal caregiving service, but according to radiological findings and his positive Real-time PCR test, COVID-19 was the final diagnosis. Healthcare planners and policymakers should prepare precise clinical guidelines that are compatible with domestic conditions of the country to improve the ability of healthcare providers to diagnose patients with COVID-19 to promote controlling this condition.

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Introduction

Early in December 2019, the first cases of pneumonia with an unknown origin were detected in Wuhan, China. World Health Organization (WHO) has recently named it COVID-19. The new coronavirus (COVID-19) is highly contagious and has a high risk of infection as well as a comprehensive outbreak. Therefore, due to the fast global pandemic, WHO declared public healthcare protocols on the 30th of January 2020 (1). About 20% of cases had acute symptoms and the deaths caused by this virus have been reported around 3% (2). The common symptoms of coronavirus disease are dry coughs, dyspnea, tiredness, muscle pain, and sometimes sputum and diarrhea (3). Some studies have pointed out that symptoms like digestive, cardiac, and renal disorders can also happen as a result of COVID-19 (4). The transmission happens from one person to another with a high outbreak power. The most important way to control this virus is early diagnosis and prevention of person-to-person transmission (5,6).

This virus entered Iran as well and the first positive case of this disease in Iran was officially declared on February 18th, 2020. Gradually, new cases were diagnosed in different cities of Iran. Considering the significance of proper diagnosis and cutting off the transmission chain, in the present study which is a case report, the researcher investigated one case of disorder in early diagnosis of the disease in a 78-year-old with COVID-19 having atypical symptoms.

Case Report

A 78-year-old man was referred to the emergency ward of Valiasr Hospital in Fasa,Fars province on 8th March 2020. The chief complaints of this patient for which he had referrals were black stool and constipation. He was examined and hospitalized by the emergency medicine specialist. The specialist got suspicious of

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digestive problems and GI bleeding after the patient mentioned his complaints. The doctor then prescribed an abdominal ultrasound and stool occult blood (OB). Then, the specialist suggested counseling about digestion and he transferred the patient to the internal service. The abdominal ultrasound did not show positive results for ileus. According to the nursing reports, the patient had coughs and decreased O_2 saturation by about 89%. Therefore, oxygen with a nasal cannula (NC) was used for him. A chest x-ray was taken too. His x-ray (Figure 1) was suspected of COVID-19, so the doctor prescribed a chest CT scan. An infection specialist counseling was requested as well. The infectious diseases specialist visited the patient and saw the CT scan of his chest. Based on the patient's history that is provided below, the doctor became suspicious of the coronavirus; hence, he transferred the patient to the ward prepared for COVID-19 patients. In the course of treatment, a throat swab was taken and then sent for a real-time PCR test. The test confirmed positive for the coronavirus. The result of the test for blood in the stool was negative. The medical history of the patient showed digestive problems like mild diarrhea, nausea, and three episodes of non-bloody vomiting and anorexia for five days. The patient had visited a general physician. He had prescribed metronidazole 250 mg twice daily, Loperamide two tablets twice daily, Cefixime 400 mg daily, and Hyoscine twice a day, but after five days, the patient referred to the emergency ward with dark stool and constipation. Also, the patient had an opium consumption history. It is noteworthy that two of his family members had already been hospitalized for being positive with the coronavirus.

The chest CT scan (Figure 2) showed multiple bilateral ground-glass opacities. Table 1 demonstrates the patient's lab tests.

The patient was hospitalized in the COVID-19 ward with oxygen through a nasal cannula and received Hydroxychloroquine tablets with 200 mg dose per 12 hours, Pantoprazole tablet 40 mg twice a day, and Lactulose syrup 10 cc three times a day. He was finally discharged from the hospital on March 14th, 2020, i.e. 7 days later, with sao2 =95% and RR=14, BP=110/70, T=36.9, and *P*=84 vital signs.

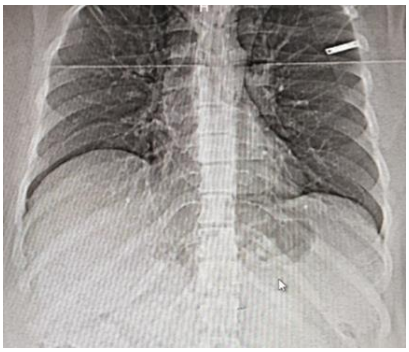

Figure1. Chest x-ray

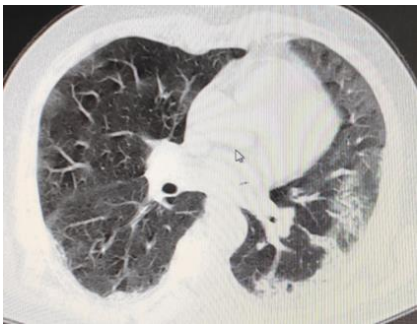

Figure 2. Chest CT Scan

Table 1. Patient's laboratory tests

WBC	3.7 **	SGOT	68*
RBC	5.22	SGPT	29
HB	15.0	Alb	3.6
HCT	42.1	Bun	9
Lymph	18.5	Cr	0.9
Neutrophil	74.4	Pt	14.2
ESR	14	INR	1.16
CRP	Positive2+	PTT	42
Stool OB	Negative		

* Elevation ** Reduction

Discussion

Various studies have emphasized the early diagnosis and breaking transmission chain as effective measures to control the COVID-19 disease (7,8). However, since the symptoms of this disease are not always the common

ones like dry cough or dyspnea, and in some cases, for example, in older ages, there may be atypical symptoms including thrombocytopenia and bleeding, diarrhea and digestive symptoms, dizziness, and renal disorders, they lead to wrong medical diagnosis. Thus, the result is improper treatment and not quarantining the patient and not preventing him from having contact with other people. An example of this kind is the reported case where the symptoms of COVID-19 disease was mistaken with a digestive disease, so the treatment of digestive disease was prescribed for the patient. The patient had contact with other people for almost five days after the symptoms were noticed, so he may have infected some other people (5,6,9).

In this case, the general physician misdiagnosed the disease due to atypical symptoms. On the other hand, Loperamide intake caused constipation that led to medical error in the preliminary diagnosis made by the emergency specialist (10). These all resulted in not transmitting the patient to the COVID-19 ward, where the personnel wore protective equipment, at the admission time. However, for the mentioned case, the emergence of breathing symptoms along with digestive symptoms led to the decision to perform radiography and chest CT scan and final diagnosis of COVID-19 disease.

Since general physicians and other healthcare personnel are the first people facing patients with the coronavirus, they should receive the necessary instructions about different symptoms of infection with the virus. However, general training about these symptoms can be effective in the proper referral of patients to specialist diagnosis centers. Healthcare planners and policymakers should devise precise clinical guidelines that are compatible with the domestic conditions of the country to reach the maximum potential and sensitivity in diagnosing patients with COVID-19 and, therefore, help control the outbreak.

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