Case Report

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Corona Virus Disease 2019 (COVID-19) presenting as carbon monoxide poisoning

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Abstract

Introduction: Corona Virus Disease 2019 (COVID-19) is a pandemic disease in the World and some patients are asymptomatic. In this report, we present an asymptomatic COVID -19 patient detected as a result of carbon monoxide poisoning.

Case report: A 76-year-old male patient was admitted to the emergency department with the complaint of syncope cause of carbon monoxide poisoning. In further investigations, COVID-19 was detected in the patient.

Conclusion: We describe the first COVID-19 patient presenting as carbon monoxide poisoning in literature.

Keywords: COVID-19, Carbon monoxide poisoning

Introduction

The pandemic of the 2019 novel coronavirus disease (COVID-19) infections that developed in Wuhan, Hubei Province has spread to other country in the world[1]. It is now evident that most cases of COVID-19 disease develop mild respiratory and constitutional symptoms, while some cases are asymptomatic[2]. In this case report, we aimed to present the asymptomatic COVID -19 patient detected as a result of cabonmonoxide poisoning.

Case Report

A 76-year-old male patient was admitted to the emergency department with the complaint of syncope. In detailed anamnesis taken from the relatives of the patient, the patient who lived alone in the house, fell asleep after burning the stove in the evening and was found unconscious by relatives in the morning. He had hypertension in his medical history. The patient's blood pressure, pulse, fever and respiratory rate were 160/110 mmHg, 100/min, 36.4 ^{0}C and 26/min. On his physical examination patient's consciousness was confusion. Glaskow Coma Score (GCS) of patient was 13. Oxygen saturation was evaluated as 80%. Patient was taken into security circle. Nasal oxygen therapy was started at 4L/min per hour. Then the causes of syncope of the patient was began to be investigated. There was no pathology except sinus tachycardia at his electrocardiography. Rectal interference was normal stool. Complete lood count (CBC), glucose, aspartate aminotransferase (AST), alanine aminotransferase (ALT), Troponin, blood gas, d-dimer, electrolytes, urea, creatinine levels were investigated. From the patient's blood tests, we found that glucoase value was 102 mg/dl, pH was 7,42 and carboxyhemoglobilin (COHb) level was 36%. The other blood tests were normal. The patient was diagnosed with carbon monoxide poisoning. Brain tomography was evaluated as normal. Because of the low saturation of the patient, chest tomography was also performed. In the chest tomography scan, we detected ground-glass opacities (GGOs) and incomplete consolidations in pleural neighborhoods, showing multifocal peripheral location in both lungs (Figure1-2). On top of that, the patient was isolated in our covid service. Oxygen therapy was continued with a mask. Nasopharyngeal swab was taken from the patient for the diagnosis of COVID-19. COVID-19 was positive as a result of reverse-transcriptase polymerase chain reaction (RT-PCR). On the second day of CO poisoning treatment, the patient's COHb values decreased to 0.1%. Hyperbaric therapy was not applied to the patient because of suspected COVID-19. The patient was taken Favipiravir and Plaquanil

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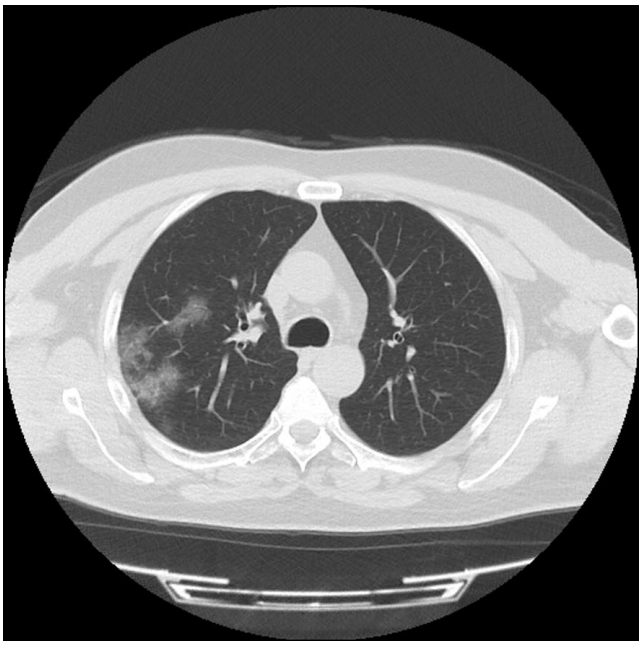

Figure 1: ??

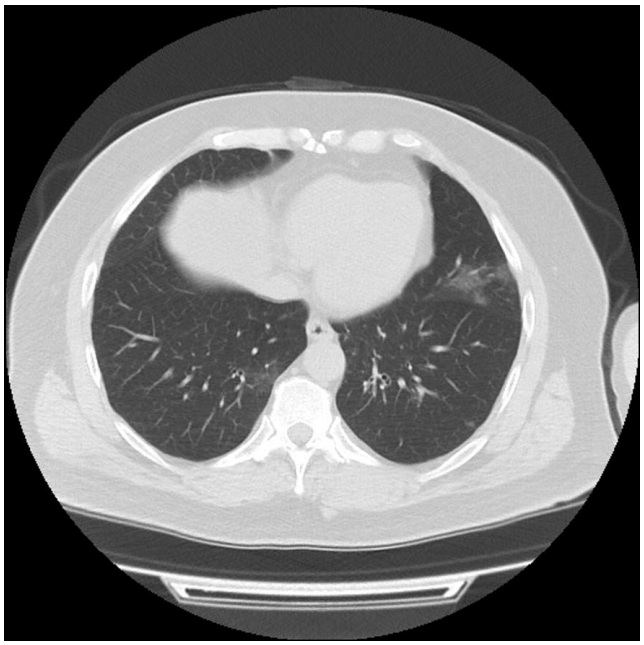

Figure 2: ??

treatment for COVID-19 and after 5 days, the patient's saturation was 98%. GCS became 15. The patient, who did not have any complaints, was discharged with suggestions of isolation at home.

Discussion

Diseases accompanied by asymptomatic cases of COVID-19 are occasionally reported in the literature[3]. In this report, we present a case that does not have covid-19 symptoms and admitted to the emergency department due to carbon monoxide poisoning was diagnosed with COVID-19.

In the literature, the tomography and chest radiography typical findings of COVID-19 pneumonia are discussed radiologically. CT findings are typically characterized by GGOs or bilateral pulmonary consolidations in multiple lobular and subsegmental areas[4]. In our case, there were no symptoms of COVID-19, but radiologically on the patienet's chest tomography we detected GGOs and incomplete consolidations in pleural neighborhoods, showing multifocal peripheral location in both lungs. These findings helped us to diagnose COVID-19.

COVID-19 cases usually apply to the emergency department with symptoms such as fever, cough, dyspnea. However, most cases are asymptomatic carriers and undetectable these cases[5]. In our case, he was asymptomatic carrier until he was not exposed to carbonmonix poisonig and COVID-19 was not detected.

Conclusion

We describe the first COVID-19 patient presenting as carbonmonoxide poisoning in literature. It should be kept in mind that patients presenting to the emergency department with any symptoms may have asymptomatic COVID-19 patients.

References

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