Original Article

# Too long and persistent hiccups can be the only symptom of COVID-19

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## ABSTRACT

Coronaviruses typically affect the respiratory tracts of birds and mammals, including humans. Doctors associate them with the common cold, bronchitis, pneumonia, severe acute respiratory syndrome (SARS), and coronavirus disease 2019 (COVID-19). As time passed by, other symptoms emerged, including the loss of smell and taste, fatigue, body pains, headache, hair loss, and even a rash in the mouth. Now, our team revealed another atypical symptom reported by patients infected with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes the coronavirus disease (COVID-19) – persistent hiccups. This case report is unique due to the duration of this rare and the only symptom of covid19 for 10 days.

**Keywords:** covid19, persistent hiccups, unusual coivd19 symptom

## Introduction

The world has been entrapped with a new Corona Virus Disease (COVID-19) since early 2020. Most of the signs and symptoms caused by the new coronavirus are similar to other upper respiratory diseases. Although most of the reported complaints were related to upper and lower respiratory tracts, recently, some gastrointestinal and even dermatologic problems have emerged as chief complaints in some patients. There is not enough and comprehensive evidence on signs and symptoms of COVID-19; therefore, it seems too early to provide an appropriate clinical decision-making rule for this newly emerged pandemic viral disease. People with COVID-19 have had a wide range of symptoms ranging from mild symptoms to severe illness. Symptoms may appear 2-14 days after exposure to the virus. Typical symptoms include cough, shortness of breath or difficulty breathing, fever, myalgia and sore throat. There are other unusual or atypical presentations of COVID-19 in ORL practice [1-4]. We report a 64-year-old male patient presenting with hiccups as the only symptom and he was found to be COVID-19positive with real time polymerase chain reaction(RT-PCR).

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## Case presentation

A 64-year-old male patient presented to the outpatient clinic with persistent hiccups for approximately 10 days. He is non-smoker, no an alcohol abuser, no addicted to drugs and no other comorbidities or past history of pulmonary disease. He has positive history as CABG about 10 years ago, hypertension for 15 years, and a case of Prostatectomy due to his urology problem. He mentioned that he faced several problems such as fever, Ataxia, weakness and urinary problems about 8 days before his reference to hospital. He was visited by otolaryngologist and there was no evidence indicating that any problems related to his pharynx. In his endoscopic process which was done by gastrologist we could not find any reasonable proofs for his hiccups. His vital signs were (temperature:36.5, blood pressure 90/60, pulse rate :80). His ECG (Fig2) showed LVH pattern and

PRP rogation precordial and in his Echocardiography, we found EF:40-45%, no significant valvar heart disease and normal pulmonary artery systolic pressure (PAP). After more examination his Oxygen saturation revealed noticeable decrease. His laboratory-test findings were : WBC: (6.5 × $10^9$/L), Lymphocyte: 30% ,Hb :11.5 grams per deciliter, platelet: 200,000 platelets per microliter of blood, Bun: 20 mg/dL, Cr: 1.2 milligrams per deciliter , Phosphate: 4.1 mg/dl, Magnesium level :2.1 mg/dl, CRP: +1, ESR: 22 .Due to that find he was referred to the cardiologist for more examination. In the first step his So2 checked for 2 times and it was 84% and then with high dubiety about contamination to covid-19 he was asked for taking High-resolution computed tomography (HRCT) and Polymerase chain reaction (PCR). HRCT (Fig:1) of the chest was performed showing bilateral ground glass appearance throughout the lung with predominance in the peripheral lower lobes. He admitted immediately and got the routine treatment of covid-19 at the Ahvaz center of covid-19 patient. After 48 hours that he received treatment of covid-19 such as Hydroxychloroquine, Lopinavir/Ritonavir, Sevoflurane and Dexmedetomidine infusion, his persistent hiccups was completely disappeared and cared.

## Discussion

As our team know, this is the first unique case report of persistent hiccups as unusual presentation of COVID19 for 10 days. In Prince G article, reported a similar case in 62-year old man with a four-day history of persistent hiccups. He had abnormal chest x-ray and CT scan with ground-glass opacities scattered throughout the lungs [5]. Hiccups (hiccoughs) are known as sudden inspiration immediately followed by an active closure of the glottis. Hiccups lasting longer than 48 hours are referred to as persistent hiccups and those lasting more than 60 days are considered intractable. The real mechanism of hiccups is not completely well-known. Hiccups result from a stimulation of the central or peripheral components of a hiccup reflex arc. Multiple physiologic or pathologic factors have been mentioned to cause hiccups. The most common are of gastrointestinal origin, such as gastric distention or GERD Metabolic abnormalities and drugs are also frequent causes for hiccups [6].

## Conclusion

It is considered as a pivotal element for the Otolaryngologist to be familiar with the rare presentations of COVID-19. Early recognition of COVID-19 facilitates subsequent management and case isolation to eliminate the risk of viral transmission. COVID-19 should be considered in the differential diagnosis of any case of persistent hiccups.

## Declarations

Ethics' Approval**:** The study was approved by Ahvaz Jundishapur University of Medical Sciences ethical committee. An informed consent was obtained from the patient

## disclosure of interest

The authors report no conflicts of interest.

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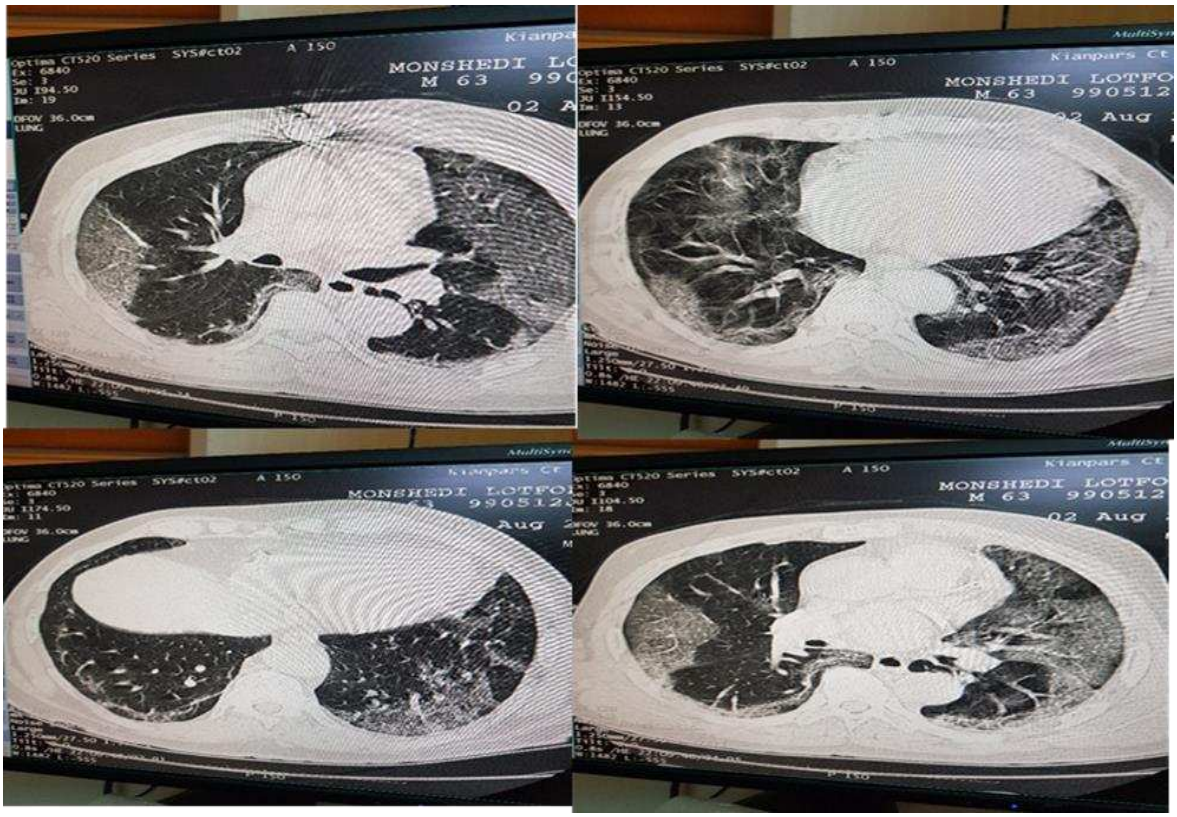

**Figure 1-** CT scan with ground-glass opacities scattered throughout the lungs

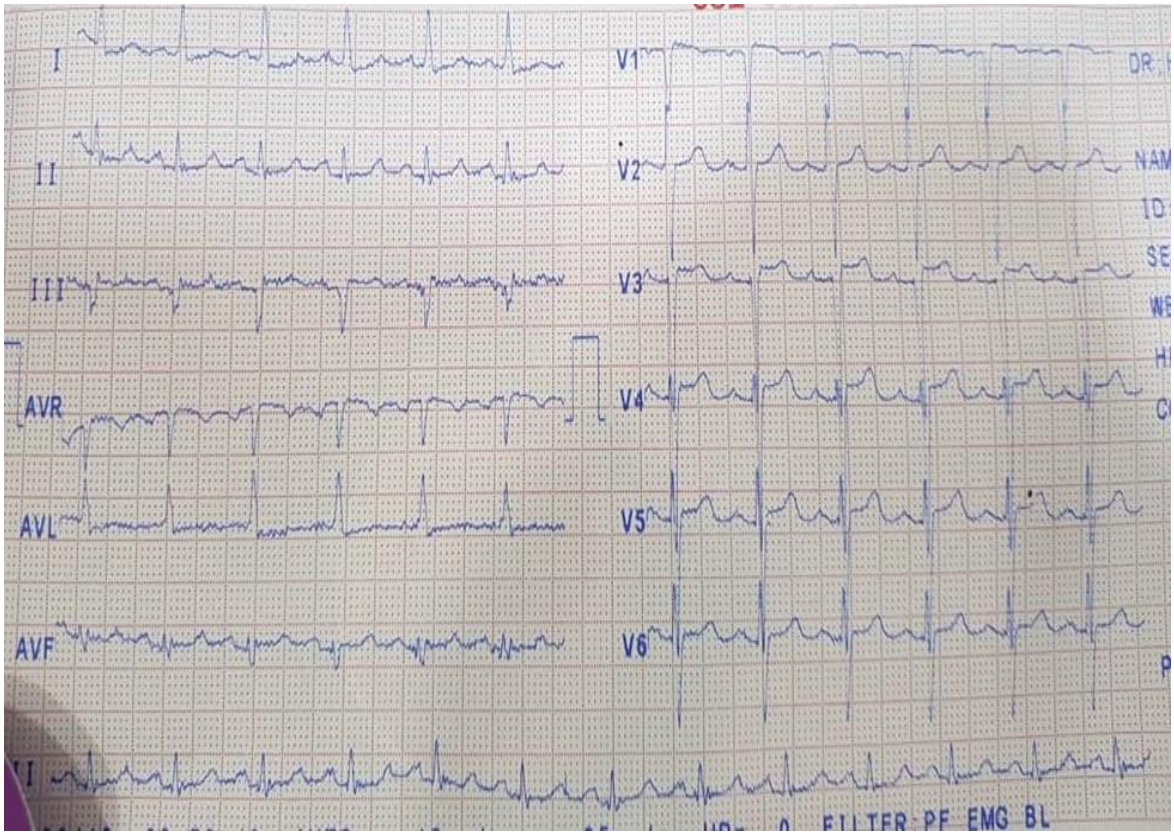


**Figure 2-ECG of patien :** His ECG showed LVH pattern and PRP rogation precordial