



Letter to Editors

Has the chief complaint of patients with COVID-19 disease changed over time?



ARTICLE INFO

Keywords:

COVID-19 infection
 Patient's chief complaint
 SARS-CoV-2
 Signs and symptoms

Since its outbreak, 2019 novel coronavirus (SARS-CoV-2) has been associated with a spectrum of a disease, known as coronavirus disease 2019 (COVID-19), ranging from asymptomatic to conditions required intensive care support and invasive mechanical ventilation, to multiple organ dysfunction syndromes. Iran was among the first countries struggled with the epidemic and in Iran, Saveh was among the first cities that reported most infected patients up to March 15, 2020 [1]. The full picture of the spectrum of disease severity of COVID-19 is not yet complete. Common symptoms include fever, cough, and dyspnea; less frequent symptoms were anorexia, diarrhea, pharyngalgia, abdominal pain, dizziness, headache, impaired consciousness, acute cerebrovascular disease, ataxia, neuralgia, fatigue, acute respiratory distress syndrome, sore throat, arthralgia, asthenia, rhinorrhea, sneezing, purulent nasal discharge, myalgia, vomiting, nasal congestion, nasal stiffness, orbital pain, facial fullness and sinus pain, nasal irritation, otalgia, cheeks pain, cephalalgia, delirium, hoarse voice, hypogeusia, hyposmia, hypopsia, dysgeusia, ageusia, parosmia, unilateral facial palsy, vertigo, skin rash [2–9].

In this retrospective study, we evaluated a total of approximately 1100 patients with COVID-19 diagnosis based on either laboratory- or CT-based diagnosis of SARS-CoV-2 infection who were admitted to Shahid Moddares Hospital, Saveh, Iran between March 1, 2020 and May 1, 2020. Common symptoms at the onset of disease were different based on patient's chief complaint during these two months. Based on our finding, the clinical manifestations of COVID-19 disease have been changed over time among our patients and the signs and symptoms of COVID-19 disease presented at illness onset vary. For first two weeks of the outbreak, most of our patients (> 80%) had fever, dyspnea and non-productive cough and these reporting signs were the prominent features based on their reported chief complaints at the time of admission. After two weeks, the prominent clinical manifestations that our patients complained about them were weakness and gastrointestinal symptoms and these reporting signs were much more common in younger patients. In addition, they were the first sign of most children who were infected with this disease. Around last days of March and the first week of April, most of our patients (> 60%) reported the olfactory dysfunction among other symptoms. Also, a study at that time in Iran reported a surge in outbreak of olfactory dysfunction after 2 weeks of COVID-19 epidemic [9]. Around there weeks ago, most of patients (> 60%) were admitted with chief complaint of

vertigo, otalgia and skin rash distributed on their shoulder and arms. We found that most of our patients who presented with gastrointestinal symptoms, olfactory dysfunction, vertigo, otalgia and skin rash have not had any significant defect on their chest CT scan and presented less severe form of disease along with fever and weakness and we discharged them with medical therapy and suggested them to become isolated at their home and followed up every week for evaluation about their disease. To the best of our knowledge, it is the first report that investigates changing in the patients' chief complaints at the time of admission by passing the time from the start date of COVID-19 epidemic. It needs to be assessed worldwide by further clinical studies to find out the exact correlation between alteration in patient's signs during time as it is worthwhile to notice these changing in patient's signs are related to the different types of virus due to mutation or any other causes which lead to a variety of patient's presentation over time.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.mehy.2020.109974>.

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<https://doi.org/10.1016/j.mehy.2020.109974>

Received 8 May 2020; Received in revised form 27 May 2020; Accepted 5 June 2020
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