

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.e-jmii.com

Perspectives

Can COVID-19 present unusual GI symptoms?

Ahmad Hormati ^{a,b}, Alireza Shahhamzeh ^c, Mahboubeh Afifian ^d,
Fatemeh Khodadust ^e, Sajjad Ahmadpour ^{a,*}

^a Gastroenterology and Hepatology Diseases Research Center, Qom University of Medical Sciences, Qom, Iran

^b Gastrointestinal and Liver Diseases Research Center, Iran University of Medical Sciences, Tehran, Iran

^c Department of Medical Radiology, Faculty of Medicine, Qom University of Medical Sciences, Qom, Iran

^d Health Information Technology, Tehran University of Medical Sciences, Tehran, Iran

^e Department of Radiopharmacy, Faculty of Pharmacy, Mazandaran University of Medical Sciences, Sari, Iran

Received 9 March 2020; received in revised form 18 March 2020; accepted 18 March 2020

KEYWORDS

COVID-19;
Gastrointestinal
disorder;
Pneumonia;
Real-time reverse-
transcriptase
polymerase chain
reaction

Coronavirus disease 2019 (COVID-19) is a highly infectious disease that originated in Wuhan, China and is now spreading throughout the world.^{1,2} A couple of weeks prior to the COVID-19 outbreak in Iran, the number of patients referred to our gastroenterology clinic in Shahid Beheshti Hospital in Qom increased unusually by 20%. The patients (aged between 19 and 83 years, with a BMI of 17.5–22)

exhibited various gastrointestinal (GI) symptoms, including epigastric pain, constipation, diarrhea, nausea, vomiting, muscle pain, and melena; the patients did not respond to treatment with common therapeutic agents. Following history-taking and physical examination, appropriate biochemical, hormonal, and blood and tumor marker tests were conducted. However, the persistence of clinical symptoms led us to conduct other diagnostic procedures such as abdominopelvic computed tomography (CT), endoscopy, and colonoscopy. For the majority of patients, results of laboratory tests for blood analysis, biochemical analyses, endoscopy, and colonoscopy were acceptable. However, some abnormal findings were noted in the upper

* Corresponding author.

E-mail addresses: hormatia@yahoo.com (A. Hormati), ashahhamzeh@yahoo.com (A. Shahhamzeh), mahafifian@gmail.com (M. Afifian), khodadoust.fateme@gmail.com (F. Khodadust), sajjadahmadpour@yahoo.com (S. Ahmadpour).

<https://doi.org/10.1016/j.jmii.2020.03.020>

1684-1182/Copyright © 2020, Taiwan Society of Microbiology. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Please cite this article as: Hormati A et al., Can COVID-19 present unusual GI symptoms?, Journal of Microbiology, Immunology and Infection, <https://doi.org/10.1016/j.jmii.2020.03.020>

abdominal CT scan sections. Due to the current outbreak of COVID-19 in Qom province, we immediately suspected COVID-19. For further evaluation, a chest CT scan and laboratory tests for SARS-CoV-2 were performed using real-time reverse-transcriptase polymerase chain reaction (rRT-PCR). Surprisingly, all patients with unusual GI symptoms, tested positive for SARS-CoV-2 and various forms of lung involvement were seen in the chest CT scans. However, no mortality occurred and all symptoms subsided after 2–3 weeks for all patients, without the administration of any medication. Respiratory tract symptoms were not observed in any patient in this study.

Based on these findings, we hypothesized that COVID-19 has a spectra of symptoms, and unusual GI symptoms can be considered among them. Lai et al.,³ have reported that in adult patients, fever was the most common symptom (92.8%; $n = 258$), followed by cough (69.8%; $n = 194$), dyspnea (34.5%; $n = 96$), myalgia (27.7%; $n = 77$), headache (7.2%; $n = 20$), and diarrhea (6.1%; $n = 17$).³ Our observations are based on patients referred to a single-center gastroenterology clinic, and only two cases were documented. Thus, it is important to address promptly whether the incidence of unusual GI symptoms occurs before the incidence of respiratory disorders in patients confirmed to have COVID-19 pneumonia. The answer to this question may offer better, more effective therapeutic

management, before lung involvement, of the COVID-19 virus.

In conclusion, all physicians should be aware of some unusual GI symptoms, which could be initial symptoms in patients suspected of COVID-19. Moreover, it is necessary to take precautions to avoid spread of this highly contagious infection, especially to those who are in close contact with the patient.

Declaration of Competing Interest

The authors declare no conflicts of interest.

References

1. Chen HJ, Guo JJ, Wang C, Luo F, Yu XC, Zhang W, et al. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *Lancet* 2020;**395**:809–15.
2. Zhu N, Zhang DY, Wang WL, Li XW, Yang B, Song JD, et al. A novel coronavirus from patients with pneumonia in China. *N Engl J Med* 2020;**382**:727–33.
3. Lai CC, Shih TP, Ko WC, Tang HJ, Hsueh PR. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): the epidemic and the challenges. *Int J Antimicrob Agents* 2020;**55**:105924.