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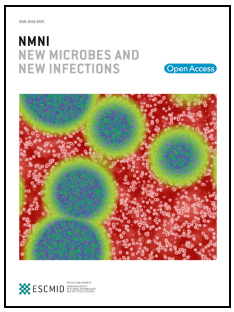

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PII: S2052-2975(20)30028-7

DOI: https://doi.org/10.1016/j.nmni.2020.100676

Reference: NMNI 100676

To appear in: *New Microbes and New Infections*

Received Date: 30 March 2020

Accepted Date: 1 April 2020

Please cite this article as: Hormati A, Ghadir MR, Zamani F, Khodadadi J, Afifian M, Ahmadpour S, The preventive strategies of GI physicians during the COVID-19 pandemic, *New Microbes and New Infections*, https://doi.org/10.1016/j.nmni.2020.100676.

The preventive strategies of GI physicians during the COVID-19 pandemic

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Since December 2019, a number of cases of Coronavirus disease 2019 (COVID-19) was reported from Wuhan and in just three months, the virus has spread from Wuhan to the Iran country (1). It's mentioned that Islamic Republic of Iran especially Qom city is one of the highest risk areas for COVID-19. It's well documented in literature that close contact between infected patients and normal ones increased the mortality rate in population (2). In this letter, we pay attention to the preventive strategies that may significantly reduce the close contact between patients and gastrointestinal (GI) physicians. Previously, we report that after the outbreak of COVID-19 infection in Iran country, the referred patients to our GI clinic in Shahid Beheshti Hospital are increased unusually by 20% (3). As, suitable therapeutic or diagnostic methods for better evaluation of the GI disorders is irrefutable, what control programs are required to reduce close contact between GI physicians and referred infected patients? This mater became more important when five of our gastroenterology physicians in our clinic had involved to corona diseases with various forms of lung involvement. The persistence of unusual GI symptom not only increased the referred patients to our clinic, but also led us to conduct diagnostic or therapeutics procedures such as endoscopy, endosonography or ERCP as risky procedures. Thus, in this mater, following some preventive strategy is

highly indeed for successful control of COVID-19 infection. Initially, GI physicians must announced the patients that human-to-human transmission is the main way of infection via close contact or through air droplets in COVID-19 pandemic. Personal protective equipment such as surgical masks, gowns, face shield, gloves, hand disinfectants must be used by physicians during any medical care especially for endoscopy care that demand short physical distance between infected COVID-19 patients and physicians (4). On the other hands, due to the long duration time requirement and high possible of aspiration of oral and fecal material during endoscopy, we limited this protocol only for emergency patients. In these patients for example cholangitis, cholangiosepsis or active gastrointestinal bleeding (GIB), we try to perform this procedure in completed sedation conditions and with persevering the minimum safe distance. In the case of some procedures including; ERCP, endosonography or therapeutic endoscopy for patient with GIB, may be better that patient be incubated to be reduced the Gastroesophageal reflux disease (GERD). Also, appropriately waste storage and washing of the hands after the ending of the protocols are main point for prevention of the spreading of the virus. We also had minded important information to all our staffs in GI clinic to create extremely safe environment and had to learn how to protect themselves

from this deadly virus. In addition, all entrance doors to the endoscopy and colonoscopy buildings were sterilized after the ending of the medical care for individual patient. For infected patients, we orally informed the patients with unusual GI symptoms is not need to medications and not necessary to referred to our GI clinic again, unless for emergence conditions. For prevention of long awaiting line in front of the clinic, we employed more GI physicians, as well as, all patients are called ahead and asked for on time presence in clinic. In this regards we take more forces for employment of health physicians and have checked body temperature every day for insurance from healthy. If we suspected any infection of our physicians or staffs, we prevented them for working in the clinic by isolation in negative pressure until negative result of SARS-CoV2 test. In conclusion, the main aim is that we have to do our best to prevent COVID-19 infection from infected patients to GI physicians and staffs during performance of high risky procedures.

Declaration of Competing Interest

The authors declare no conflicts of interest.

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