

Gastrointestinal manifestations of COVID-19 and possibility of feco-oral route of transmission

Letter to Editor

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Sir,

At the end of 2019, the humankind faced the biggest threat of modern era. COVID-19, which started from Wuhan, China and became a pandemic with social, economic and healthcare impacts. The causative virus was SARS Cov-2 and the resulting disease coronavirus disease, which acquired pandemic status by March 31, 2020.[1] The centers for disease control and prevention (CDC) report the respiratory droplets to be the major mode of transmission of COVID-19.[2] Other transmission sources are being discovered and the purpose of this article is to briefly outline the gastrointestinal (GI) manifestations feco-oral transmission of COVID-19.

COVID-19 has relatively short incubation period and after initial exposure, the symptoms can appear from 2 days to 14 days.[3] The clinical features of COVID-19 include fever, cough, muscle fatigue, acute respiratory distress syndrome (ARDS), diarrhea, hemoptysis, headache, sore throat and shock.[4] The prevalence of GI symptoms in COVID-19 has been reported to be 39.6% and commonly reported symptoms include nausea (17.3%), diarrhea (12.9%), anorexia (12.2%) and vomiting (5%).[5] A meta-analysis of clinical characteristics of COVID-19 showed 17.6% patients had GI symptoms.[6] In a cohort of 41 hospitalized patients, diarrhea (3%) was reported as the most common GI manifestation of COVID-19.[7] Another study reported similar findings with diarrhea (2%) and nausea/vomiting (1%) as the GI manifestations of the disease.[8] Wong et al., reported a higher frequency of diarrhea (2-10%) and nausea (1-10%). They reported that that GI symptoms could precede onset of pyrexia and respiratory symptoms.[9] Liver involvement has also been reported as GI manifestation of COVID-19 with incidence ranging from 14.8% to 53%.[10] In a study conducted by Lin et al, out of 95 patients, 11 had GI symptoms on admission and 47 developed similar symptoms later on during the course of hospital stay. These symptoms included diarrhea (24.3%), anorexia(17.9%) and nausea(17.9%).[11]

Asymptomatic individuals in incubation period can be a source of transmission.[12] SARS CoV2 RNA is detectable in stool specimen even when serum tests negative for virus.[13] Tang A et al., reported an asymptomatic child whose stool specimen was positive for COVID-19 on PCR, 17 days after last virus exposure and stool specimen remained positive for 9 days after the respiratory specimen had turned negative.[14] COVID-19 RNA has been detected in anal as well as serum samples. A study carried out on fecal samples of 65 hospitalized patients for presence of SARS CoV-2 RNA including 42 with and 23 without GI symptoms described 22 and 19 patients to be positive respectively and postulated that GI tract might be a potential route of transmission and a target organ for SARS CoV-2. [15] The work of Xu Y et al., described a small cohort of eight children who persistently tested positive on rectal swabs even after nasopharyngeal swabs were negative raising possibility of feco-oral route postulating that viral shedding for GI tract may be greater and last longer.[16]

It is of utmost importance that healthcare provider should be aware of variability of clinical presentation for COVID-19 positive patients. Feco-oral route as another route of transmission needs to be investigated further since it can have serious implications for public health.

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CONFLICT OF INTEREST

The author declared no conflict of interest

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