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Editorial

COVID-19 Pandemic Outbreak: Focus on the Gastrointestinal Features

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The current pandemic outbreak of COVID-19 is caused by the novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is a dangerous disease that can occur both in the form of an acute respiratory viral infection of a mild course and in a severe form. The most common complication of the disease is viral pneumonia, which can lead to respiratory distress syndrome and subsequent acute respiratory failure. Although the main symptoms are fever, cough, and shortness of breath, some patients also develop gastrointestinal and hepatic manifestations. Viral RNA was isolated from stool samples from COVID-19 patients, raising concerns about faecal-oral transmission in addition to airborne droplets [1].

Research data has shown that coronavirus has a tropism for the gastrointestinal (GI) tract. The receptor-binding domain of SARS-CoV-2 can bind to the human ACE2 (angiotensin-converting enzyme type 2) receptor with high affinity, which correlates with the efficient spread of the virus in humans. Although ACE2 is highly expressed in the lungs in type 2 alveolar cells, the receptor is also highly expressed in the gastrointestinal tract, especially in the small and large intestine, as well as in cholangiocytes and epithelial cells of the pancreatic ducts [1-3].

Gastrointestinal symptoms in COVID-19 are common and may be present in 26% of patients in certain populations [4]. Acute diarrhoea can also be an early symptom of SARS-CoV-2 disease [5]. The most common manifestation of the gastrointestinal tract in patients with COVID-19 is diarrhoea, followed by nausea and/or vomiting and abdominal pain. Other common gastrointestinal symptoms in COVID-19 patients are anorexia, anosmia, and dysgeusia (loss of smell and taste) [1].

For many COVID-19 patients, the liver damage has been noted, that may be accompanied by an increase in liver enzymes - aminotransferases, total bilirubin, and the development of hepatitis [6]. Liver damage is usually transient, but severe damage can occur. Cases of damage to the pancreas with the development of pancreatitis have also been described [7]. Gastrointestinal symptoms can occur with the use of drugs recommended for the treatment of COVID-19 infection. Patients with chronic liver disease, inflammatory bowel disease due to immunodeficiency may have a high risk of COVID-19 disease.

The problem of transmission of COVID-19 by the faecal-oral route, in addition to the respiratory one, raises concerns and suggests that faecal-oral transmission may play a vital role in the transmission of the disease, even after the virus has been cleared from the respiratory system. Viral RNA is also found in stool samples from patients without gastrointestinal symptoms such as diarrhoea. Demonstrated the same accuracy in detecting COVID-19 using stool specimens compared to pharyngeal swab specimens. This discovery could potentially lead to the development of a less invasive diagnostic test for COVID-19 [8]. Involvement of the gastrointestinal tract COVID-19 necessitates consideration of several clinical tactics, such as the inclusion of a rectal smear before discharge [9], as well as personal protective equipment when performing endoscopic examinations [10].

Thus, COVID-19 is a novel coronavirus respiratory infection with high morbidity and mortality. In addition to respiratory manifestations, COVID-19 patients also often have gastrointestinal symptoms. Therefore, it is extremely important to pay attention to gastrointestinal symptoms. The role of faecal virus excretion in the current

pandemic and the impact of COVID-19 patients with the underlying gastrointestinal disease is still unknown. It is necessary to follow the rules of personal hygiene - washing hands, cleaning and disinfecting toilets. Until an effective vaccine is developed, the global impact of COVID-19 will continue. Further research is required to better understand GI involvement in SARS-CoV-2 infection.

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