March 06, 2020 2 min read

Patients with COVID-19 may experience GI symptoms, possible fecal-or

Results from two studies published in *Gastroenterology* discussed manifested gastrointestinal s fecal-oral transmission in patients with COVID-19, the disease caused by the novel coronaviru

"Amounting evidence from former studies of SARS indicated that the gastrointestinal tract (in coronavirus (SARS-CoV) was verified by the viral detection in biopsy specimens and stool, ever which may partially provide explanations for the gastrointestinal symptoms, potential recurre SARS from persistently shedding human as well," **Jinyang Gu, MD,** of the department of transp Affiliated to Shanghai Jiao Tong University School of Medicine, and colleagues wrote in one of

Digestive symptoms of COVID-19

Two laboratories from China recently reported that they "successfully" isolated live 2019-nCo according to Gu and colleagues.

Before respiratory symptoms, many patients with COVID-19 had diarrhea, nausea, vomiting a according to Gu and colleagues.

Key takeaways from studies:

who remained positive in stool even after they demonstrated negative in respiratory samples.

symptoms, many patients with COVID-19 had diarrhea, nausea, vomiting and abdominal discomfort.

and 14 females) tested positive for SARS-CoV-2 RNA in stool.

Studies discussed manifested gastrointestinal symptoms and possible fecal-oral transmission in patients with COVID-19, the disease caused by the novel coronavirus.

"Surprisingly, recent single-cell RNA sequencing data from two independent cohorts revealed ACE2 expression in cholangiocytes (59.7% of cells) instead of hepatocytes (2.6% of cells) sugg might lead to direct damage of intrahepatic bile ducts," the researchers wrote. "Altogether, ma to be alert on the initial digestive symptoms of COVID-19 for early detection, early diagnosis, e intervention."

Signs for SARS-CoV-2

In accordance with Chinese CDC guidelines, **Fei Xiao, MD, PhD,** of the department of infectious Affiliated Hospital, Sun Yat-sen University, Guangdong, China, and colleagues obtained clinica included serum, nasopharyngeal and oropharyngeal swabs, urine, stool and tissues, from 73 pa SARS-CoV-2 between Feb. 1 and 14. Then, using China CDC-standardized quantitative polymer researchers tested specimens for signs of SARS-CoV-2 RNA.

"Our immunofluorescent data showed that ACE2 protein, which has been proved to be a cell re abundantly expressed in the glandular cells of gastric, duodenal and rectal epithelia, supportin into the host cells," Xiao and colleagues wrote in the other study.

Endoscopy was used to obtain esophageal, gastric, duodenal and rectal tissues from one patien colleagues performed histological staining as well as viral receptor ACE2 and viral nucleocapsi confocal microscopy (LSM880, Carl Zeiss MicroImaging) was used to obtain images of fluores

Xiao and colleagues found that, of the 73 hospitalized patients with SARS-CoV-2, 39 patients (tested positive for SARS-CoV-2 RNA in stool. Patients who tested positive for SARS-CoV-2 RN from 10 months to 78 years. Investigators noted the duration time of positive stool was betwee 17 patients who remained positive in stool even after they demonstrated negative in respirator

In the patient in which gastrointestinal endoscopy was performed, the mucous epithelium of e duodenum and rectum demonstrated no significant damage with histological staining. Xiao an infiltrate of occasional lymphocytes in esophageal squamous epithelium and in lamina propria and rectum, numerous infiltrating plasma cells and lymphocytes with interstitial edema were

According to the researchers, the viral host receptor ACE2 stained positive mostly in the cytopl epithelial cells.

"Staining of viral nucleocapsid protein (NP) was visualized in the cytoplasm of gastric, duoden epithelial cell, but not in esophageal epithelium," the researchers wrote. "The positive staining was also observed in gastrointestinal epithelium from other patients, who tested positive for S – *by Monica Jaramillo*

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Xiao F, et al. *Gastroenterology*. 2020;doi:10.1053/j.gastro.2020.02.055.

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Algorithm scans outpatient letters, identifies those who must 'shield' ag

Key takeaways:

- An algorithm analyzed outpatient letters to quickly determine who needed to 'shield' agains guidelines.
- The algorithm could be applied to future public health initiatives.

Perspective from Daniel J. Wallace, MD, FACP, MACR

An automated algorithm designed to identify rheumatology patients who need to "shield" aga

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