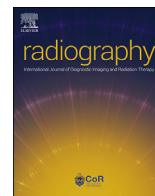




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Letter to the Editor

Potential implications of novel coronavirus disease (COVID-19) related gastrointestinal symptoms for abdominal imaging



Keywords:

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Abdomen
Imaging

Dear Editor,

The number of cases of novel coronavirus disease (COVID-19) has risen dramatically across the world in recent weeks. The most frequently reported symptoms in a recent meta-analysis of 46,248 infected patients include fever (91%), cough (67%), fatigue (51%), and dyspnea (30%).¹ However, a recent review has demonstrated that gastrointestinal symptoms including anorexia (40–50%), diarrhea (2–50%), vomiting (4–67%), nausea (1–29%), abdominal pain (2–6%) and gastrointestinal bleeding (4–14%) may also occur in patients with COVID-19.² In some cases, gastrointestinal symptoms may be the only presenting findings.³ Studies have shown that the ACE2 receptor, the host cell receptor responsible for mediating infection by COVID-19, is highly expressed in absorptive enterocytes of the bowel, in addition to the lungs.⁴ The presence of COVID-19 in the gastrointestinal system is supported by fecal RT-PCR positivity in some patients.⁵

The rise in reporting of gastrointestinal symptoms related to COVID-19 has important potential implications for radiographers. Firstly, it's necessary to recognize that while uncommon, gastrointestinal symptoms may be the presenting finding of COVID-19 in some patients. This highlights the need for stringent cleanliness and strict adherence to regional public health recommendations in radiology departments, regardless of respiratory-related patient symptomatology. Secondly, radiographers should be prepared that the number of requests for COVID-19 related abdominal imaging may increase. For instance, exclusion of secondary causes for abdominal pain may be requested in patients with suspected or known COVID-19 disease. Abdominal organs with high concentrations of ACE2 expression may be theoretically vulnerable to COVID-19 related infections. These sites notably include the esophagus, ileum, kidneys, and bladder.⁶ In particular, the ileum contains approximately 30% ACE2-positive epithelial cells. At the present time, there are no known imaging reports of COVID-19 related inflammatory changes in these abdominal organs. Finally, imaging

requests to evaluate the cause of gastrointestinal bleeding may increase as the number of suspected or confirmed COVID-19 cases continue to rise. This may be especially true if these patient demonstrates bright red blood per rectum, declining hemoglobin, and/or hemodynamic instability.

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Conflict of interest statement

None to declare.

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