Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Positive Fecal Immunochemical Test or Cologuard in the Era of the Novel Coronavirus Disease-2019 Pandemic

Dear Editors:

We have encountered a few patients with positive fecal immunochemical test (FIT) and multitarget DNA/FIT tests (MT-DNA/FIT) in the midst of the novel coronavirus disease-2019 (COVID-19) pandemic that have required us to have detailed discussions with our patients and balance the pros and cons of proceeding with colonoscopy now verses postponing it for possibly >6 weeks, until the end of this crisis.

The COVID-19 pandemic has caused drastic changes among health care facilities around the world, leaving routine health care follow-ups and screenings as a distant priority. To date, there are >1 million cases worldwide with >29% of cases in the United States.[1] This disease gained is notable for its symptoms of cough, shortness of breath, and fevers.[2]

As the incidence of cases worldwide continue to increase, a certain percentage of patients have been noted to have gastrointestinal (GI) symptoms—such as nausea and diarrhea—in conjunction with or in lieu of the other more common respiratory symptoms.[2] In a retrospective study of 850 hospitalized COVID-19 positive patients done by Han et al[3] in February 2020, those exclusively with GI symptoms were compared with patients with only respiratory symptoms or a combination.[3] Patients with only GI symptoms had a delayed diagnosis, longer time to viral clearance, and were more likely have stool positive for the viral RNA in comparison with those patients with solely respiratory symptoms.[2] Given the concern for this deadly virus to transmit via droplets/fecal shedding, it poses a significant risk during GI procedures.[3] There is also concern because a significant number of patients are asymptomatic viral carriers. Performing GI procedures on these seemingly healthy patients poses an unknown threat.[3]

The unified guidelines for endoscopic procedures were published on March 31, 2020 by multiple gastroenterological professional societies.[3] The American Gastroenterological Association also published their own "Rapid Recommendations for Gastrointestinal Procedures during the COVID-19 Pandemic" on April 1, 2020.[4] Based on these guidelines, it is recommended that all elective procedures be delayed, such as screening and surveillance colonoscopy in asymptomatic patients.[4] It is also now recommended to use a N95 and full personal protective equipment when performing colonoscopies.[4]

Although it is clearly reasonable to delay screening and surveillance colonoscopies in asymptomatic patients, what about patients with a positive FIT or MT-DNA/FIT test? What are the risks versus benefits of prolonged delay for follow-up colonoscopy?[4] For asymptomatic patients with a positive FIT or MT-DNA/FIT test, a colonoscopy is classified as a nonurgent procedure and for most cases is acceptable to delay by ≥8 weeks.[4]

Colorectal carcinoma (CRC) is the third most commonly diagnosed form of cancer; however, the evolution of precancerous lesions are usually a relatively slow process and early detection is essential in efficacious outcomes.[5] Colonoscopy has been the gold standard for identifying premalignant and malignant colonic lesions; however, FIT and MT-DNA/FIT can also be used for the detection of colon cancer and adenomas.[5] When these tests result as positive, they are followed up with an endoscopic procedure for direct visualization of the colon.[5]

Overall, MT-DNA/FIT and FIT testing for the detection of CRC have a sensitivity of 92.3% and 73.8%, respectively, whereas for advanced adenoma (AA) it is 42.4% and 23.8%, respectively.[6] The specificity of MT-DNA/FIT (86.6%) and FIT (94.9%) are low for patients CRC or AA.[6] When a positive MT-DNA/FIT test is encountered, 3.72% of patients have CRC and 19.86% have AA.[6] With positive FIT tests, 2.9%–7.8% have CRC and 33.9%–54% have AA.[7] The false-positive rates for MT-DNA/FIT (13.4%) and FIT (5.1%) are associated with peptic ulcer disease and nonsteroidal anti-inflammatory drug use.[6,8] These numbers are important when discussing with patients for adequate shared decision making. It is important to take into account patient's prior colonoscopies, personal and familial risk factors, and evidence of any red flag symptoms, such as significant weight or appetite loss, rectal bleeding, or abdominal pain, to determine the necessity of prompt endoscopy.

Based on these data (the slow progress from adenoma to CRC, relatively high percentage of false-positive, and approximate 5% of colon cancer found for a positive FIT or MT-DNA/FIT test), we agree that it would be judicious to delay endoscopic screening for asymptomatic individuals with a positive FIT or MT-DNA/FIT test to minimize the risk of disease transmission to medical providers, risk of infection to the patients themselves, and to save essential personal protective equipment for those on the frontline who need them the most.

PATRICK E. YOUNG
Department of Gastroenterology
Uniformed Services University
Bethesda, Maryland

MICHEAL TADROS
Department of Gastroenterology
Albany Medical College
Albany, New York

SHEENA MAGO
Department of Medicine
University of Connecticut Health Center
Farmington, Connecticut

References

1. World Health Organization. Available: www.who.int/emergencies/diseases/novel-coronavirus-2019.
2. Han C, et al. Am J Gastroenterol 2020;115:916–923.

3. American Society for Gastrointestinal Endoscopy. Available: www.asge.org/home/advanced-education-training/covid-19-asge-updates-for-members/gastroenterology-professional-society-guidance-on-endoscopic-procedures-during-the-covid-19-pandemic.
4. Sultan S, et al. Gastroenterology 2020;159:739–758.
5. Rex DK, et al. Gastrointestinal Endoscopy 2017;86(1):18–33.
6. US Food and Drug Administration. Available: www.accessdata.fda.gov/cdrh_docs/pdf13/P130017b.pdf.
7. Robertson DJ, et al. Gastroenterological Endoscopy 2017;85:2–21.
8. de Klerk CM, et al. Am J Gastroenterol 2018;113:1778–1787.

Conflicts of interest
The authors disclose no conflicts.


Most current article

https://doi.org/10.1053/j.gastro.2020.04.046