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LETTER TO THE EDITOR

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How do we reopen our motility laboratory safely and efficiently?

As we attempt to safely navigate restarting motility studies in the age of the COVID-19 pandemic, there are a multitude of factors that need to be considered. The ANMS task force recently published timely and comprehensive recommendations for the resumption of motility laboratory operatives and recommend COVID-19 testing, where available, 48 hours prior to all motility procedures, and appropriate personal protective equipment (PPE) for all procedures performed.[1] These recommendations are similar to those previously set forward by a joint statement from the AGA and DHPA regarding pre-procedure testing[2] and a joint statement from the AASLD, ACG, AGA, ASGE regarding resumption of endoscopic procedures.[3]

These recommendations may seem appropriate given the aerosolizing nature of esophageal physiologic testing such as esophageal manometry and pH-impedance testing. However, applying these same recommendations to motility procedures such as anorectal manometry, biofeedback therapy, and even SmartPill ingestion may be more difficult to justify, particularly as diagnosing COVID-19 using nasal swabs carries several inherent shortcomings.

Although multiple studies have shown that the SARS-CoV-2 virus can be detected in the stool in 29%-55% of patients infected with COVID-19, and even persisting after respiratory clearance of the virus, there is no concrete evidence yet that it can be spread via this route, or that flatulence can be a means of transmission/aerosolization.[4,5]

One main shortcoming of rRT-PCR testing for COVID-19 is a high false negative rate of approximately 20%[6]; hence, a negative test may lead to false assurance of medical staff and potentially non-compliance with appropriate PPE.

Although there has been concern that asymptomatic carriers are accelerating the spread of the SARS-CoV-2 virus, the degree to which this occurs is unclear. Between April 16 and May 20, 2020, our medical center performed COVID-19 testing on 912 asymptomatic individuals 24-48 hours prior to scheduled surgical and endoscopic procedures using the A*STAR Fortitude Kit 2.0 RT-PCR assay. Out of the 912 patients tested, there were only 4 that tested positive (0.44%). Therefore, more than 200 patients without flu-like symptoms are needed to be screened to find one case of an asymptomatic SARS-CoV-2 carrier. Moreover, risk of contracting SARS-CoV-2 from an asymptomatic carrier while adhering to appropriate PPE is not clear. In one case report out of China, 455 contacts of an asymptomatic SARS-CoV-2 carrier were followed, including other patients, family members, and hospital staff. After a quarantine period concluded, there were no additional cases of SARS-CoV-2 virus detected by nucleic acid test,[7] which suggests that spread via asymptomatic carriers may be low.

Given the lag between testing and the procedure, there is also always a risk that the patient contracts the virus in between their pre-procedure testing and the procedure itself, thus necessitating the use of PPE regardless of what the COVID-19 test result shows.

Additionally, there are several logistical/practical challenges to testing each patient before any motility procedure. The time that patients would need to take off work to travel to the testing center, especially when multiple procedural sessions are needed (eg, biofeedback therapy), can add up quickly and prove difficult for patients as the economy starts to reopen. There is also the perceived risk of contracting the virus at a testing center, which may dissuade many patients from going through with the test. These logistical issues are even more of a challenge for patients who are scheduled for Monday procedures, necessitating going to a testing facility that is open on a Saturday or Sunday. Testing centers also have variable turn-around times for test results, so even if a patient undergoes testing 48 hours prior to their scheduled procedure, the results may not be available prior to the procedure.

In light of practical challenges and several unfavorable test characteristics of the COVID-19 test, we believe rather than pre-procedure COVID-19 testing in all patients, the emphasis of reopening motility laboratories should be on (a) careful pre-procedure screening for COVID-19 related symptoms, (b) vital signs assessment and (c) use of appropriate PPEs.

CONFLICT OF INTEREST

BWC and AHB have no conflicts of interest. Cedars-Sinai Medical Center has a licensing agreement with Gemelli Biotech and Aytu Biosciences. AR has equity in Gemelli Biotech and has served as consultant for GutHub.

AUTHORS CONTRIBUTIONS

BWC drafted and edited revisions of the article. AHB provided intellectual content and data. AR outlined and revised the article.

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