

Gastrointestinal Endoscopy during COVID: Do Some, Leave Most

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Since severe acute respiratory syndrome Corona virus disease 2 (abbreviated as COVID-19 disease) was declared as a pandemic by the World Health Organization (WHO) in March 2020, it has significantly impacted social, political, and economic activities all over the globe. The state authorities all over globe, in an attempt to reduce transmission, have been implementing “lockdown” wherein billions of people have been almost caged in their homes. As on April 21, 2020 over 2.5 million people have been infected and over 175,000 deaths reported. The explosive spread has crumbled the best of the health care systems of developed nations. Also, it poses unprecedented challenges to the society in general and health care workers (HCWs) in particular who are at risk to acquire infection.

Like SARS, the main route of spread of COVID-19 is airborne droplets or surface contacts but aerosol generation is another mode of transmission especially in hospital setting.^{1,2} Aerosol generating procedures (AGP) include high-flow nasal cannula (> 6 L/min), nebulizer treatment, positive airway pressure, endotracheal intubation, bronchoscopy, breath tests, nasal endoscopy, and gastrointestinal (GI) endoscopy.³ During these procedures, the virus particles can become aerolized or airborne which increases risk of spread. Aerolized virus particles can remain viable for 3 hours but up to 72 hours on plastic and stainless steel surfaces.⁴ All upper GI endoscopic procedures such as AGP are due to stimulation of reflexes of retching, coughing, or vomiting during oropharyngeal passage of the scope. Colonoscopy is believed to be less AGP but the fact that viable virus is shed in stools raises issues of fecal-oral transmission. Therefore, in hospital setting, like SARS, infection, COVID-19 can be acquired via person-to-person contact, sewage, and shared common facilities such as washrooms, lifts, trolleys, staircases, and others. Then, further spread occurs to others in the community via person-to-person contact and environmental contamination.⁵

During SARS outbreak in 2003, initially as many as 30% of SARS-infected cases were HCWs and their family members and close friends. It happened because HCWs were ignorant about the new disease and acquired the disease themselves while saving lives of patients without effective and adequate

barrier protection.^{5,6} Similarly, COVID-19 initially took roots in HCWs in China accounting for large number of total infected cases, but after using personal protective equipments (PPEs) and adherence to standard operating protocols on disinfection, risk to HCWs in China was only 3.8%.² However, such figures are quite high in Italy (8.3%) and Spain (18.5%),^{7,8} possibly they being initially lax to adherence to infectious control protocols. Therefore, HCWs are not only at a great risk for acquisition of infection but are potential source to spread to their families and subsequently to the community.^{5,6,8} SARS outbreak was brought to control fast because of draconian alert by WHO on global travel in combination with prompt detection of cases, vigorous contact tracing and their isolation, and strict adherence to infectious control protocols. These efforts contained total cases to over 8,500 and deaths of about 900 in 30 countries in 6 continents. The story about COVID-19, which has similarities to SARS, has affected people in millions. Apart from many other reasons, nonadherence to infectious control guidelines coupled with lack of social distancing and other factors by many countries especially in the Europe and the United States has resulted there in human tragedy and they account for over 75% of total deaths worldwide. In fact, we did not learn lessons from experience of SARS outbreak and made a mess this time despite of great advances in technology and understanding of diseases from 2003 to 2020.

To date, a growing body of literature has accumulated on conduct of endoscopic procedures in the forms of International Guidelines and Position Statements by various professional organizations though not based on hard data.^{4,10} Similar guidelines were published during SARS outbreak in 2003.⁹ In this issue of *JDE*, Gunjan and Garg¹¹ have reviewed the subject eloquently. These guidelines serve as a template to improve safety of patient and HCWs, avoidance of hospital-acquired infection, rational use of PPEs, and rational use of endoscopic procedures. In context of India, several issues remain unanswered or unclear by current recommendations. Most of the guidelines have been prepared by professional bodies of the U.S., Europe, China, and Italy who have witnessed devastation. The intensity of COVID-19 disease is not

uniform throughout India; 377 of 720 (52%) districts are in red/yellow zones, the others are in green zones. Even some states of Northeast and Goa are almost free of new cases. Therefore, these guidelines cannot be applied uniformly all over India and more or less usual business can start with caveat of complete adherence to standard operating procedure of infectious control protocols in combination with adherence to social distancing, frequent hand washing, use of protective gears, and organization of endoscopy teams and space in green zones. Authors are of the view that postponement of majority of otherwise indicated, time-sensitive elective endoscopic procedures (evaluation of cancer, inflammatory bowel disease, and significant symptoms and some others) may not matter. I tend to differ with the authors as it is speculated that COVID-19 may extend up to June–July, delaying procedures for another 2 to 3 months will increase morbidity and mortality of cancer, inflammatory bowel disease, and others. I understand we have to trade between safety of our staff, patients, and community rather than having refusal attitude for semielective and elective endoscopic procedures. Triage for such procedures can be done on the basis of “alarm symptoms” (unintended weight loss, dysphagia, GI bleeding, persistent vomiting, bloody diarrhea, and some others). Endoscopists should go to their usual business when a zone is declared green.

Over 28,000 people die daily in India due to non-COVID diseases/road traffic accidents. During COVID-19 outbreak, it will be unethical to lose sight of non-COVID patients. Unfortunately, health authorities have shut all outpatient and nonemergent admissions in hospitals. We have to learn to live with such outbreaks of infectious disease. We live in global village and likely to face challenges of emergence and re-emergence of infectious disease in future because of environmental pollution, movement of refugees and immigrants, international travel, changing lifestyle, and behavior of the population. Therefore, we should always find ourselves in state of readiness arming with weapons of infectious control protocols. Adoption of slogan of “*adherence to infectious control practices*” will prevent HCWs as well as patients and subsequently community from acquisition of dreadful infectious disease.^{5,8,12} Right now we talk a lot about infectious control practices but will forget fast about lessons learnt. We must understand that HCWs have been the root cause of spread of infectious disease to themselves, their family and friends, patients, and community. Chinese data are testimony to the fact that in Wuhan, China—epicenter of COVID-19—that in the initial weeks HCWs accounted for large number of total cases which was significantly reduced following adherence to infectious control practices.

The issue of “informed consent” has special connotation when GI endoscopy is performed in COVID-19 era. The informed consent requires “detailed and transparent” discussion on issues as follows: (1) acquisition of infection by

HCWs from asymptomatic COVID-19 patient and also patient may develop full-fledged infection in postprocedure period blaming the endoscopist; (2) chances of acquisition of infection despite of adherence to infectious control protocols; and (3) risks involved in postponing otherwise medically indicated, time-sensitive procedure and reasons for delaying it. Therefore, issue of informed consent has great ethical implications and challenges.

Finally, we should hope that COVID-19 like many infectious outbreaks in the past will attenuate with time or fail to maintain efficient human-to-human transmission and then we will restore as usual business. But one message should never lose our attention—“*adherence to infectious control protocols.*”

Conflict of Interest

None declared.

References

- 1 Wang C, Horby PW. A novel corona virus outbreak of global health concern. *Lancet* 2020;395:727–733
- 2 Wu Z, McGoogan JM. Characteristics of and important lessons from the Coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. *JAMA* 2020;2019:3–6
- 3 van Doremalen N, Bushmaker T, Morris DH, et al. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *N Engl J Med* 2020;382(16):1564–1567
- 4 Soetikno R, Anthony YB, Kaltenbach T, et al. Considerations in performing endoscopy during the COVID-19 pandemic. *Gastrointest Endosc* 2020;S0016-5107(20)34033-5. 10.1016/j.gie.2020.03.3758
- 5 Hung LS. The SARS epidemic in Hong Kong: what lessons have we learned? *J R Soc Med* 2003;96(8):374–378
- 6 Remuzzi A, Remuzzi G. COVID-19 and Italy: what next? *Lancet* 2020;395(10231):1225–1228
- 7 “Informe sobre la situación de COVID-19 en España” (PDF) (in Spanish). Red Nacional de Vigilancia Epidemiológica (RENAVE). 2020-04-13. Retrieved 2020-04-15
- 8 Ng K, Poon BH, Kiat Puar TH, et al. COVID-19 and the risk to health care workers: a case report. *Ann Intern Med* 2020;10.7326/L20-0175
- 9 Chiu PWY, Ng SC, Inoue H, et al. Practice of endoscopy during COVID-19 pandemic: position statements of the Asian Pacific Society for Digestive Endoscopy (APSDE-COVID statements). *Gut* 2020;gutjnl-2020-321185. 10.1136/gutjnl-2020-321185
- 10 Cheng VCC, Wong HC, Chen JHK, Yip CC, Chuang VWM, Owen TY. Escalating infectious control response to the rapidly evolving epidemiology of Coronavirus disease 2019 (COVID 19) due to SARS-CoV-2 in Hong Kong. *Infect Cont Hospital Epidemiol*; 2020:1–6
- 11 Gunjan D, Garg P. Indications for gastrointestinal endoscopy during the COVID-19 pandemic. *J Digest Endosc* 2020; 11;33–38
- 12 Muscarella LF. Recommendations for the prevention of transmission of SARS during GI endoscopy. *Gastrointest Endosc* 2004;60(5):792–795