Letter to the Editor

Impact of Surgery Cancellations due to COVID Pandemic: Trainee Perspectives

Sir,

COVID-19 pandemic has affected all aspects of healthcare, from diversion of resources for care of COVID patients to drastically reduced workload in most institutions. There was a global call for cancellation of all elective surgeries as soon as several countries were affected by the pandemic, in the beginning of mid March 2020. This was based on an anticipated surge in COVID cases that would require intensive care unit (ICU) care, which necessitated diversion of the reserve surgical resources for the care of COVID patients. Several operating theaters/rooms were converted to make-shift ICUs, especially in countries such as Italy, United States, and United Kingdom where pandemic claimed huge losses of lives. Contrary to initial expectations that pandemic will abate in 6–8 weeks, it is already a year and elective surgeries continue to remain affected.[1]

As per an international study, COVIDSurg Collaborative, it was estimated that 28,404,603 operations would be cancelled or postponed during the peak 12 weeks of disruption due to COVID-19 (2367,050 operations per week). Majority would be surgeries for benign diseases (90.2%, 25,638,922/28,404,603). The overall 12-week cancellation rate would be 72.3%. Globally, 81.7% (25,638,921/31,378,062) of surgeries for benign disease, 37.7% (2,324,069/6,162,311) of cancer surgery, and 25.4% (441,611/1,735,483) of elective cesarean sections would be cancelled or postponed. If countries increase their normal surgical volume by 20% postpandemic, it would take a median 45 weeks to clear the backlog of operations resulting from COVID-19 disruption.[2] This huge estimated backlog would likely affect efficient delivery of surgical services. With relaxation of lockdowns in most countries, including India, all patients who could not reach healthcare institutions would do so now. This is likely to overwhelm all surgical specialties, rendering long waiting periods to complete scheduled surgeries.

The drastic reduction in surgical work has also affected surgical training at several fronts. Our institution is a university teaching hospital with trainees at paramedical, nursing, undergraduate, postgraduate, and super-specialty levels. Barring emergency surgeries and cesarean sections, most elective and benign surgeries were stalled and postponed for almost 10 months. Trainees in surgical specialties and perioperative medicine/anesthesiology have not had a chance of surgical training since then. A study among neurosurgery residents had shown a 67.50% reduction in surgeries due to the pandemic.[3]

There have been several guidelines/consensus statements issued by global agencies such as WHO, CDC, and national/international professional bodies/societies regarding surgical management during the ongoing pandemic.[4,5] These guidelines can be uniformly followed in countries with organized healthcare such as National Health Service in the United Kingdom. In a country with heterogeneous health infrastructure such as India, individual institutional policies are more useful and pragmatic. Pandemic has variably affected different states and cities; thus, it is imperative to individualize surgical care as per resource availability. A uniform call for limiting elective surgeries is probably not needed anymore, especially when pandemic is unlikely to decrease any time soon. This is applicable especially to institutions which are not designated as "COVID-centers" or who are not performing surgeries on COVID patients.

There have been concerns raised about minimally invasive surgeries (MISs) and aerosol-generating procedures (AGPs).[5] This too has affected surgical training as MISs and AGPs are integral part of most surgical disciplines now. Several recommendations have been issued to decrease the risk associated with both MISs and AGPs.[5] Despite these recommendations, there has been a general hesitancy on part of surgeons to undertake MISs and AGPs, especially since available evidence is inconclusive. There are also likely procurement issues for the sudden requirement of smoke evacuation devices and modifications to MISs and AGPs, which would incur an additional expenditure and additional time for procurement. There have been changes suggested to operation theaters too, to curb the possible transmission of severe acute respiratory syndrome coronavirus *2*.[5] Cumulatively, this translates into an overall delay in resumption of surgical services, especially advanced MIS procedures.

India's healthcare resources were estimated to get overwhelmed by the end of May 2020, based on COVID case growth rates;[6] however, with serial extensions of nation-wide lockdowns, social distancing, and wide usage of face masks, Indian healthcare services are still functional. With no lockdowns and gradual relaxation in a phased manner, this "new-normal" of prevention measures would go a long way in keeping the pandemic under check.

Decision-makers must take the tough call to resume surgical services, to overcome the looming surge in patients needing surgery. It is vital to have robust strategies, mechanisms, and protocols in place for infection prevention, screening/triage, use of *personal protective equipment*, modification of infrastructure, and processes, while taking utmost care to protect the healthcare professionals, all along.[5,7] Suggested measures to facilitate surgical services and training are:

- Prioritizing operative lists as per urgency of surgery[6]
- Observing strict "universal precautions" or "personal protective equipment" as applicable
- Operation theater/room modifications as suggested in the Association of Surgeons of India 2020 consensus statement[5]
- Smoke evacuation systems and modification to AGPs
- MIS modifications to control smoke spread
- Frequent disinfection of frequently touched areas such as door handles, elevators, doors, and anesthesia machines
- Simulation based teaching to form an integral part of the curriculum of medical education so as to facilitate learning and training of the medical professionals, this will bridge their gap between the knowledge and the clinical scenario during pandemic.

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Conflicts of interest

There are no conflicts of interest.

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