**Ethical issues in Surgery during COVID-19 Pandemic**

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**Abstract**

Surgeons are facing a lot of ethical dilemmas during this COVID-19 pandemic in not only from selection of patients who need surgery during this time but also to decide who is not a fit candidate now and to be deferred to undergo surgery at a later date during this pandemic. Surgeons also has a tough call to protect himself and his team along with to perform a safe surgery without infecting the patient. There are also ethical issues of increase need of Intensive care unit (ICU) during this time for the surgical patient. A critical issue is balancing the benefit of surgery against the unknown risk of developing COVID-19 and its associated complications.

Key Words

COVID-19, Pandemic, Ethics

**Introduction**

*“Ethics is knowing the difference between what you have a right to do and what is right to do”* – Potter Stewart

COVID-19 pandemic is reducing the ability to perform surgical procedures worldwide, giving rise to a multitude of ethical, practical, and medical dilemmas. Surgeons are being forced from patient -centred ethics to public health ethics. It goes without saying that this situation is unprecedented for anyone in our lifetime.

**Dilemma of stopping elective surgery**

As soon as World Health Organisation declared novel Corona virus disease 2019 (COVID-19) infection as pandemic, American College of Surgeons brought out a guideline –“Each hospital, health system, and surgeon should thoughtfully review all scheduled elective procedures with a plan to minimize, postpone, or cancel electively scheduled operations, endoscopies, or other invasive procedures until we have passed the predicted inflection point in the exposure graph and can be confident that our health care infrastructure can support a potentially rapid and overwhelming uptick in critical patient care needs”[**1**] .This restriction will inevitably cause moral distress for surgeons as they are forced to alter elective surgical schedules and shift to other aspects of patient care , to help in “flattening the curve”. Two important shifts in ethical framework has been to stop elective surgery to accommodate COVID-19 patients in the hospital and to reduce the use of Personal Protective Equipment (PPE) due to short supply in most of the pandemic zones. As the elective surgery are now stopped, surgeons have been asked to prioritize surgery that are both medically necessary and time sensitive to perform. Although no surgeon likes cancelling surgery, the necessity to choose which operation to proceed with and which can wait is an unusual circumstance for most of the surgeons. Another unique surgical challenge is the personal risk from intraoperative infection during prioritization of who receives the limited available surgical care. The backlogs of postponed surgical procedure are another headache for the surgeons. Another source of moral distress for many surgeons in the pandemic is to stay home unless specifically called upon to render direct surgical care. The surgeons are used to rigorous operating room schedule and long outpatient clinics, are not accustomed to waiting at home. There are incidences where patients non urgent surgery being cancelled even when the patient has stated that they are willing to accept the risk of having surgery with unknown COVID-19 status [**2**]. Ethical issues are also at stake when surgeon faces scarcity of PPE and the risk of getting infected , when called to manage surgical patient in COVID-19 unit.

**Guidelines for Surgeons**

Surgeon should follow the fundamental principle of Medical ethics as defined by Beauchamp and Childress include Beneficence, Nonmaleficence, Autonomy and Justice [**3**]. Beneficence is to care for or help others and “do good”. Nonmaleficence is to “do no harm”. The responsibility of every surgeon is to act in the patient’s best interest without being influenced by any personal consideration and patient must trust on the surgeon to do the right thing. This trust is often challenged during the pandemic as surgical services cannot function normally. Even though there is high mortality postop in the elderly COVID-19 positive patients , surgeon must not consider all surgery futile in aged patients. The duty of the surgeon is to protect the most vulnerable, but they are under no obligation to offer treatment they consider futile [**4**].

**Ethics in Cancer**

Cancer patient are a vulnerable group where contracting COVID-19 during treatment exposes them to a higher mortality due to immunosuppression status whereas delay in cancer surgery may also lose the golden opportunity for surgical cure. A ethical balance is needed between postponing treatment that is currently too risky in the pandemic versus continuing to save the lives of cancer patients with urgent surgery unrelated to COVID-19. Surgeon face particular risk due to physical proximity and contact with potentially infected body fluids, blood ,urine and faeces . Many surgeons died after performing surgery on COVID -19 patients. As a result, in many cases , patient with aggressive disease have been initiated or maintained on systemic therapy or chemotherapy in lieu of surgery. Prolong utilization of chemotherapy in cancer patients can sometimes provide radiographic control but does not always translate into pathological control.

**Ethics of Altruism**

Altruism is the selfless concern for the well being of others. Surgeons will selflessly place themselves at risk to help patients and support other colleagues. Surgeons have demonstrated that it is possible to provide safe surgical care even for novel Corona virus 2019 positive patients , while minimizing nosocomial infection to healthcare workers. Autonomy is to respect another’s wishes. Surgeon -patient relationship should be considered a partnership , in which the surgeons’ duty is to honestly educate and empower patients to make appropriate informed choices about surgical care. Informed consent for surgery needs to be drafted especially for the pandemic which should include the risk, benefits, and alternatives [**5**].

**Miscellaneous Ethical issues**

Apart from the scarcity of PPE, as the number of cases is gradually spiking in India, we may soon face the ethical challenges of rationing ventilators and intensive care unit beds. There is also an ethical dilemma regarding the performance of laparoscopic surgery presently since it causes aerosol formation during pneumoperitoneum. Cardiopulmonary resuscitation is also under scanner as it also causes aerosolization of the virus.

For those patients requiring acute surgical treatment , an alternative to the conventional gold standard treatment can be performed if its known inferiority is outweighed by the reduce risk of COVID -19 related morbidity and mortality [**6**].

**Conclusion**

“The Ethical person should do more than he is required to do and less than he is allowed”       Michael Josephson

Surgeons are facing one of the most challenging time and multiple ethical dilemmas during this novel Corona virus 2019. Every surgical decision needs to weigh with risk of contacting the virus. On one side , surgeon must go all out to save the life of the patient during surgical procedure whereas on the other side, the surgeon must save himself and his team from getting infected. Whether the conscientious surgeon opts for a conventional, non-conventional or non-operative management during this pandemic, retaining the patient’s best interest at the heart of surgical practice will preserve the professional integrity.

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