COVID 19 and surgery- how this pandemic is changing the way we operate

Editor

COVID-19 has put an immense strain on the healthcare delivery systems worldwide. With health systems unable to cope up with this demand, it is rightly said that surgery is a scarce health resource[1]. A large chunk of the resources and personnel have been deployed to fight COVID-19, sometimes at the cost of other sectors. However, the presence of COVID-19 does not mean that other medical or surgical emergencies have decreased. Physicians and surgeons need to address those emergencies as well so as to prevent system collapse. In this context, the management of patients requiring major emergency or semi elective surgeries poses a big challenge. Since there are a lot of asymptomatic carriers, we do not know whether the patient presenting to us with a surgical emergency is infected or not. Moreover, there are some pathophysiological data to suggest that the immunosuppressive effects of the virus combined with surgical stress may cause adverse outcomes[2]. Thus. It is important that surgical practice is reorganized in these times, especially during acute care surgery. We propose a few changes in the way we operate, with a focus on decreasing operative time but not at the cost of patient safety.

Modifications in surgical techniques[3,4,5]

Slight modifications in surgical techniques and adherence to simple well-versed maneuvers are important to decrease the operating time without compromising patient safety. Shorter operating time also decreases the systemic inflammatory response seen postoperatively, and thereby improves the outcomes. Anesthetists should use regional/local anaesthesia in place of general anaesthesia wherever possible. It is also advised to resort to open surgeries, in place of laparoscopic surgeries. It is important that an experience surgeon operates so as to cut short the operating time. Furthermore, closed suction devices should be used and absorbable sutures may be used for skin also to avoid exposure during suture removal. Enhanced recovery protocols should be utilized supplemented with measures to improve the immunity. In acute care surgery, a surgeon should have low threshold for removal of a dispensable organ (e.g. Spleen) in place of repairing it. Stoma formation should be considered instead of anastomosis to decrease the chances of post-operative complications. If anastomosis is considered, stapled anastomosis can be done instead of a hand-sewn anastomosis. The acute care surgeon should assess the feasibility of conservative treatment in diseases like acute appendicitis. Maxillofacial injuries should be treated with mandibulomaxillary fixation, where possible. Definitive fixation of a bony injury can be postponed if it can be managed with external fixation. In neurotrauma, speed of the drill should be slowed to reduce skull bone aerosols. Also, bone bank facility can be utilized instead of abdominal preservation for skull bone after decompressive craniectomy.

Conclusion

A shorter operative time without compromising the outcome of the patient is required. Hence, acute care surgeons need to readjust their surgical techniques.

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1 McDermott FD, Kelly ME, Warwick A, Arulampalam T, Brooks AJ, Gaarder T, *et al.* Problems and solutions in delivering global surgery in the 21st century. *Br J Surg* 2016; **103**: 165–69.

2 Lai CC, Liu YH, Wang CY, Wang YH, Hsueh SC, Yen MY, *et al.* Asymptomatic carrier state, acute respiratory disease, and pneumonia due to severe acute respiratory syndrome coronavirus 2 (SARSCoV-2): Facts and myths. *J Microbiol Immunol Infect* 2020; **53**: 404–412.

3 Di Saverio S, Pata F, Khan M, Ietto G, Zani E, Carcano G. Convert to open: the new paradigm for surgery during COVID-19? *Br J Surg* 2020; **107**: e194.

4 COVIDSurg Collaborative. Global guidance for surgical care during the COVID-19 pandemic. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11646 [Epub ahead of print].

5 Mowbray NG, Ansell J, Horwood J, Cornish J, Rizkallah P, Parker A, *et al.* Safe management of surgical smoke in the age of COVID-19. *Br J Surg* 2020; https://doi.org/10.1002/bjs.11679 [Epub ahead of print].