

Cardiovascular surgery in the COVID-19 pandemic

Coronavirus disease 2019 (COVID-19) is a remarkably challenging health issue that provoked all the healthcare providers to contemplate some measures about the situation. All the healthcare workers frontline (especially emergency service, pulmonologists, infection disease specialist, and anesthesiologist) have produced recommendations on prevention and taking care of COVID-19 patient.^{1,2} Whereas, at the second line another important issue is the ongoing healthcare for continual disease situations.


There are two main critical issues of cardiovascular surgery in this pandemic. First, to delay the elective surgeries is essential to sustain the healthcare service. Elective case triage is trickier for cardiovascular procedures which are relatively progressive conditions. Definitive decision to defer a procedure should be made regarding firstly to the capacity of the healthcare system, and then availability of surgical/anesthesia staff, intensive care unit beds, need for isolation beds, ventilators, cardiopulmonary bypass machine, extracorporeal membrane oxygenator, supplies such as sutures, grafts, valves and blood, and blood product availability. The patient status should be taken into account to defer or to perform the procedure, as well. Therefore, we developed a "level of priority" (LoP) statement for cardiovascular procedures.³ Elective cases are defined as LoP I that may be postponed as much as possible. LoP II to IV cases should be reconsidered by an individual basis by "Heart Team." The situations that can be managed by percutaneous coronary intervention, endovascular procedures, and so on may be handled by nonoperative manners.


The second one is the personal protection equipment and infection measures while dealing with a suspected/confirmed COVID-19 patient. It is obvious that a suspected/confirmed COVID-19 patient ought to be assessed with specific measures for any medical or surgical intervention. Personal protection equipment (PPE) is the most crucial measure during the pandemic. It is recognized that many centers are facing PPE shortages and there are recommendations to reesterilize the masks to be effective for reuse.⁴ More measures should be taken into consideration for a sterile environment such as surgical procedures. Some added measures such as face shield may be recommended for surgical procedures. The surgical team that scrubbed in must wear extra equipment such as a surgical coat and double gloves. It may be recommended to fix the long-sleeve gloves to the surgical coat by adhesive drapes.³ It is obvious that this kind of working environment with all this equipment is challenging, sometimes irritating and disquieting. One other big problem is the fraught feeling of healthcare providers to be diseased or to be contagious for their family.

Therefore, healthcare providers may need enormous support for burnouts during the pandemic.

The other measures such as preparation of the operating room (OR), anesthesiologic management, transportation of patients, and disinfection of OR were discussed in the referring article.³

In conclusion, it is important to assess the "level of priority" for surgical procedures to support the service of a healthcare facility. More than that, the whole surgical team should be protected by adequate PPE and should take the time to get fully protected.

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