Surgeries in asymptomatic carriers during SARS-COV-2 pandemic: Challenges and future

Sir,

The outbreak of severe acute respiratory syndrome coronavirus (SARS-CoV-2) pandemic lead to around 5,400,000 confirmed cases in more than 210 countries all over the world (26th May 2020).[1] To avoid burden on the health care system and to avoid disease transmission, most of the hospitals suspended all the elective procedures and are undertaking only emergency procedures. A suspected/confirmed COVID-19 patient for an emergency procedure may be treated with strict adherence to standard operating procedure (SOP) with enhanced personal protective equipment (PPE) put forth by various agencies,[2,3] If they are symptomatic or with contact history, we will proceed after testing for COVID-19. But what if the patient is an asymptomatic carrier?[4] Does every patient need to undergo “COVID-19” screening for an elective procedure? Even after the COVID-19 screen, are we sure the test result is not false-negative?[5] Are the health care workers always at risk after this pandemic? So, the answer would be to do the best of the best cost-effectively.

Firstly, there is around 10–20% chance of false-negative results.[3] Secondly, it is not cost-effective to carry out every elective procedure with SOP in all asymptomatic patients with negative contact history.

A better way would be to emphasise on areas where the chances of transmission are more, use equipment which can be reused and sterilised. The most common mode of transmission in the operating area is by aerosol-generating procedures (AGP), that is, intubation, extubation, suction and manual ventilation. Few precautions may be followed while executing these procedures:

1. The term “elective and emergency” needs to be well understood and balanced with the health of the patient in this time of crisis. Indication of surgery needs to be evaluated against the resources. Emergency surgeries in asymptomatic carriers also stand as a risk during the pandemic

2. Symptomatic suspected/confirmed COVID-19 cases posted for elective procedures should be done only after considering the need for surgery. Cosmetic surgeries may be avoided

3. Pre-anaesthetic check-up also needs to be done with N95 masks, goggles, and hand hygiene. Proper history taking and informed consent (regarding asymptomatic carriers and hospital staff is not responsible if they are detected later) should be done[5]

4. The person handling the airway may use a set of seven to eight N-95 masks/month (reused after “mask quarantine” for 3 days or sterilised with ultraviolet radiation or hydrogen peroxide vapor),[6] goggles (reusable), face shield (reusable), and standard PPE in place of enhanced PPE
5. Use a plastic box with preferably suction/vacuum port or two holes in plastic cover, making a room for two hands, over the patient to be intubated or extubated. The mask may also be covered with plastic cover to limit the spread of aerosol. Avoid manual ventilation as and when possible. If required, small tidal volumes with heat moisture exchanger filter (HMEF) may be used[7]

6. Pre-oxygenation before induction gives some time during desaturation. It reduces mistakes during induction and hence decreases aerosol generation. The routine use of rapid sequence induction using intubating dose of rocuronium or succinylcholine should be encouraged, unless contraindicated. Routine use of videolaryngoscope is preferable

7. Limit the number of people during AGP to two-three (including a trained assistant) to minimise the exposure to AGPs. Safe extubation practices should be adopted (use of intubation box or plastic drapes)

8. Conduct the elective surgeries under regional anaesthesia (sub-arachnoid block, regional blocks) as and when possible. Use second generation supraglottic airway devices whenever feasible

9. Minimise the number of ventilator disconnections to avoid the operating theatre pollution and aerosol spread. A negative pressure operation theatre (OT) is preferable or if not possible increase the number of air exchanges per hour[3]

10. Use of HMEF may be encouraged at the patient end and at the expiratory limb. Routine use of videolaryngoscopes may be encouraged

11. Hand-hygiene before and after the procedure and social distancing need to be followed in OTs.

The surgeons performing open abdominal surgeries, ophthalmological surgeries, oropharyngeal surgeries, etc. may also use the N-95 mask with goggles and face shield. Hence, considering precautionary measures would be a better choice for all asymptomatic cases, as the risk of false-negative tests cannot be negated. This adds to the safety along with COVID screening. Although the spread of the virus to people not performing AGP is not guaranteed, this is the best that can be done cost-effectively. However, for any suspicion of COVID-19 status or a confirmed case, PPE is a must.

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