To the Editor,  

We read with great interest the article by Babu et al. regarding anesthetic management of a COVID suspect case.\(^1\) Suspected or confirmed COVID patients pose unique challenges for the anesthetist due to its contagiousness and systemic implications of the illness. Unfortunately, this article is somewhat unclear, apparently resulting from the authors’ omission of recent literature, probably due to the perils of the extensive nature of the literature on the management COVID related guidelines. We wish to highlight some concerns and finer nuances regarding the case.

First, the patient was asymptomatic and only suspected to be a COVID case based on her foreign travel that was 20 days back. The definition of a suspected case is any patient with acute respiratory illness with no other etiology fully explaining the clinical presentation, and a history of travel to or residence in a place with reported local spread of COVID19 disease during the 14 days prior to symptom onset.\(^2\) In most cases, the incubation period of COVID is 5–11 days and generally, patient is noninfective after 14 days.

Second, there is no mention of the COVID status of the patient. Considering the widespread pandemic, all patients for any kind of surgical procedure (except emergency lifesaving surgery) should be tested for COVID-19 using reverse transcription-polymerase chain reaction (RT-PCR) and be posted only when it is negative.\(^3\) Also, standard personal protective equipment (PPE) inclusive of an N-95 mask and face shield should be used for all aerosol-generating procedures (AGP) irrespective of report results. They have mentioned that PPE was worn by everyone in operating room (OR), but the type of PPE used is not mentioned. In general, the surgical procedures should be triaged and only emergency and time-sensitive surgical procedures should be allowed until this epidemic is contained. Medically necessary, time-sensitive (MeNTS) scoring system is one such prioritization tool which can be utilized to manage the precious resources efficiently and ethically in these times.\(^3\) Also, the COVID patients who are operated have poorer outcomes due to perioperative immunosuppression, venous thromboembolism, unmasking of severe infection, etc.\(^3\) The necessity of doing this case without getting the RT-PCR test has not been described and could amount to exposing the staff to an avoidable risk.

We have some concerns regarding their anesthetic management of the patient. Anesthesia management for patients in COVID setting is intricate and considering...
endotracheal intubation is a high-risk AGP, appropriate steps should have been taken to prevent the generation of aerosols and their spread. Two-handed bag-mask ventilation while maintaining tight seal is important but not documented in report.\[3,4\] Several barrier devices have been described like aerosol box (26), (27) with holes and use of transparent plastic drapes (used in the present case) to cover the patient’s head during both intubation and extubation to reduce the exposure of the anesthesiologists. But these also increase the difficulty of airway manipulation in an already difficult situation since all the people involved in airway manipulation are encumbered by wearing full PPE.\[4\] In addition, fogging due to PPE may further complicate the process of intubation.\[4\]

Various guidelines have suggested the use of videolaryngoscopes (VLs), but they have not clarified which one should be preferred because they tend to increase the distance between anesthesiologist and the suspected patient.\[2,5\] The authors mention covering the CMAC, but only the monitor of CMAC was covered and the blade and the wire were left exposed to the aerosol droplets and can be a potential source of infection to others. However, the VLs may improve the overall success rates of intubation, but they may actually increase the time to intubation and number of attempts.\[3\] The authors have not mentioned regarding the need to use a stylet and whether a clamp was used till the endotracheal tube (ETT) cuff was inflated. In addition, use of an intubating aid may be difficult in the presence of a barrier device, may itself increase the generation of aerosols during its removal, and one cannot clamp the ETT as per recommendation if the stylet is used.\[4,6\] We would suggest that a VL with disposable blade, preferably a channeled one, should be used (e.g., KingVision or Airtraq VL) to reduce the need of additional intubating aids and ensure that ETT is clamped till its cuff is inflated. In addition, an agent like lignocaine can be administered to suppress cough during extubation.\[6\] Use of semiclosed or open circuits should be avoided during extubation and a closed circuit with closed suction in-situ should be used.\[5,6\] Placing wet gauze around mouth and nose during extubation minimizes the aerosol spread in addition to the use of barrier enclosure.\[6\]

The authors have mentioned that the theater air vents were closed. However, dedicated COVID negative pressure OR with minimum 12-20 air changes/h has been recommended in such cases.\[2,4,6\] Considering the patient was a suspect, she should have been allowed to recover in the OR only to avoid the exposure of the hospital staff to the aerosols during patient transfer. After extubation, a new triple-layer mask/N-95 should be worn by the patient.

The importance of proper doffing is well highlighted, and it is the riskiest with respect to aerosol exposure and should be done meticulously. They have rightly mentioned that it was done inside the OR, but it should be done in a sequential manner one after other while using “buddy check” to be double sure.\[6\]

One must not hurry to proceed for any surgery in COVID setting and proper planning must be done prior to surgery including a negative RT-PCR report, appropriate PPE selection, use of barrier devices with a channeled VL for intubation, and proper doffing after the procedure.

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Conflicts of interest
There are no conflicts of interest.

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In patients with a tracheostomy undergoing neck surgery, a cuffed endotracheal tube (ETT) is usually intubated via the stoma and often sutured to the chest wall. During paratracheal manipulation, ETT malposition or surgical damage to the ETT cuff sometimes causes airway leak. ETT cuff leaks during surgery are challenging because the difficulty in ventilation might lead to hypoxemia. Therefore, it is essential to know the causes of ETT cuff leaks. Here, we report a case of a lesser-recognized cause of cuff leak due to the puncture of an embedded part of the pilot line during fixation of the ETT tube inserted via the tracheostomy stoma. Written consent for publication was obtained from the patient.

A 73-year-old man was scheduled for total pharyngolaryngectomy and free jejunal reconstruction for hypopharyngeal cancer. Tracheostomy had been performed 1 month before the surgery due to concerns about suffocation. After induction of anesthesia, a 7.0 mm of wire-reinforced ETT was intubated via the tracheostomy stoma and fixed using adhesive tape (by the surgeon). Four hours after the start of surgery, the ETT was refixed by surgical suturing because of poor ETT fixation. After that, we found a continuous minor airway leak. Pilot balloon inflation was attempted several times but could not resolve the leak; thus, the ETT was replaced with a new one. Immersion of the removed ETT in water showed air leakage from the middle body. On closer examination, minor damage to the pilot line on the ETT was observed. A needle puncture during fixation was considered as the cause of the damage.

The causes of ETT cuff leaks include ETT tube malposition and damage to the inflation system, including pilot balloon, pilot valve, and pilot line. Damage of the embedded part of the pilot line is rare, but it has been reported during osteotomy in maxillofacial surgery. Only one report showed needle injury of the embedded pilot line during Le Fort 1 osteotomy. Toyosato et al. reported that the walls where the pilot line is embedded are thin and can be damaged by the needle, even with weak forces. Thus, damages to the embedded pilot line as well as ETT body during maxillofacial surgery are known complications. However, to our knowledge, this is the first report on needle injury of the embedded pilot line caused by surgical fixation of the ETT. It is crucial to be aware of this complication for not only anesthesiologists but also surgeons.

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