In Reply  We thank Thong et al for their letter. We chose our method because it allows easy setup and takedown for continued microscope use after drilling is complete. We have taken to using the Sterile-Z Back Table Drape because it has a perforation down the middle to allow for easy break-away when it is no longer needed. As stated in our original Research Letter,1 we expect better modifications to come about, and otolaryngologists will always be a creative group.

We appreciate the alternative suggestion from Warner et al. Contamination of the facial and/or forehead skin with droplets would still need to be carefully treated using their method, and those of us who wear glasses but cannot wear contact lenses would not be able to use swim goggles.

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Conflict of Interest Disclosures: Dr Carron reported grants from Med-El outside the submitted work. No other disclosures were reported.


Tracheostomy During COVID-19 Pandemic—In Search of Lost Timing

To the Editor  Tay et al should be complimented on their Viewpoint “Surgical Considerations for Tracheostomy During the COVID-19 Pandemic: Lessons Learned From the Severe Acute Respiratory Syndrome Outbreak,” highlighting preoperative and perioperative recommendations for tracheostomy during the coronavirus disease 2019 (COVID-19) pandemic. The authors searched the literature for tracheostomies performed during the previous outbreak of severe acute respiratory syndrome (SARS), finding 3 case series and 2 case reports (23 procedures). Lessons learned from those experiences were summarized into 5 points. The need for adequate personal protective equipment in performing surgery, the site to perform surgery to lessen transport of infected patients, the precautions to reduce time of exposure to infective secretions, the establishment of experienced teams, and the caution in postprocedure waste disposal were discussed and translated to the current COVID-19 pandemic.

Of note, the authors’ recommendations focused on maximizing the safety of clinicians, which is undoubtedly a crucial aspect. For example, delaying tracheostomy until complete virus clearance has been proposed to minimize the risk of clinician infection.2 However, there is little to no consideration of patients’ perspective. Would patients with COVID-19 benefit from tracheostomy? This question remains unanswered, and none of the studies presented data on tracheostomy best timing in these patients.

Sparse randomized clinical trials (RCTs) involving patients with different underlying conditions have compared outcomes between early vs late tracheostomy, with inconsistent results. A large Italian RCT3 reported no significant differences in ventilator-associated pneumonia, mortality, and length of intensive care unit (ICU) stay between the early (after 6-8 days from endotracheal intubation) and late (13-15 days) tracheostomy groups. Conversely, in an RCT including patients with neurological conditions in an ICU,4 early tracheostomy (<3 days) provided significantly lower intensive care unit (ICU) mortality, 6-month mortality, and use of sedatives. In their meta-analysis comprising 222 501 adult patients with prolonged intubation, Adly et al5 showed that early tracheostomy (>7 days) was significantly associated with better outcomes, including mortality rate, incidence of hospital-acquired pneumonia, duration of mechanical ventilation, and length of ICU stay.

Although there is general agreement that optimizing safety protocols for tracheostomy in patients with COVID-19 is of utmost importance, data on tracheostomy best timing in these patients is still lacking. Would early tracheostomy in patients with COVID-19 improve weaning, disease clinical course, and/or reduce ICU stay? This remains nebulous, and significant variability—even regarding percutaneous vs surgical tracheostomy techniques—exists in the clinical practice.

We congratulate the authors’ on their contribution and look forward to further research investigating safety and potential advantages for early tracheostomy in patients with COVID-19.

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Conflict of Interest Disclosures: None reported.


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In Reply We thank Cazzador et al for their appreciation of the Viewpoint “Surgical Considerations for Tracheostomy During the COVID-19 Pandemic: Lessons Learned From the Severe Acute Respiratory Syndrome Outbreak.” Since the publication of the Viewpoint, several other groups have also developed guidelines for tracheostomy in the context of coronavirus disease 2019 (COVID-19), with similar goals of minimizing perioperative aerosolization risks. We agree with Cazzador et al that an optimal timing for tracheostomy in patients with COVID-19 has not been clearly established. Given that open tracheostomy performed with the necessary personal protective equipment has proven to be safe during SARS (severe acute respiratory syndrome) and COVID-19, in general, we would consider tracheostomy in a patient approaching 14 days of intubation without the possibility of imminent successful extubation.

We have thus far not advocated early tracheostomy in patients with COVID-19 in the absence of any compelling evidence to do so. Evaluating benefit from early tracheostomy in patients with COVID-19 is a challenging task, given the variable clinical severity of COVID-19 among patients and the multiple risk factors that are associated with disease severity.

In a multicenter cohort study of 53 patients with COVID-19 who underwent tracheostomy, Chao et al reported that 56.6% of patients were liberated from the ventilator at a mean (SD) of 11.8 (6.9) days after tracheostomy. The authors observed a weak positive correlation between time to tracheostomy and posttracheostomy ventilator dependence, suggesting some support for earlier tracheostomy. Nonetheless, the authors also acknowledged the possibility of selection bias of healthier patients for earlier tracheostomy and delayed tracheostomy in patients with questionable prognoses.

A randomized clinical trial with specific patient selection criteria would be ideal to address this question. However, it has been our experience, and also the experience of others, that most patients with COVID-19 who require intubation can be successfully extubated within the first 14 days. Therefore, careful selection of patients who will benefit from tracheostomy is required for such a clinical trial.

In relation to percutaneous tracheostomy techniques, there have been reports of percutaneous tracheostomy being safely performed in patients with COVID-19, with special emphasis on minimizing aerosolization, including complete paralysis of the patient and pausing ventilation during instrumentation of the airway. A technique involving placement of the bronchoscope alongside the endotracheal tube (rather than inside of it) to minimize aerosolization has been described. Nonetheless, one should be cognizant of the aerosolization risks involved, especially during a difficult percutaneous tracheostomy procedure or one in which a complication occurs. If these risks are unacceptable, then an open tracheostomy with direct surgical control of the airway would be the safest approach.

We once again thank Cazzador et al for their thoughtful comments and the opportunity to discuss these issues.

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Conflict of Interest Disclosures: None reported.


CORRECTION

Omission of Funding Source: In the Research Letter titled, “SARS-CoV-2 Virus Isolated From the Mastoid and Middle Ear: Implications for COVID-19 Precautions During Ear Surgery,” published on July 23, 2020, funding from the National Institutes of Health was omitted. The funding and role of the funder has been added.