How to prevent hypoxia during surgical and percutaneous tracheostomies in COVID-19 patients

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Dear Editor,

We read with great interest the paper by Rovira et al. reporting that the tracheostomy in COVID-19 may facilitate weaning from mechanical ventilation [1]. The authors further stated that there was no difference in outcome between percutaneous dilatational (PDT) and surgical tracheostomy (ST) in critical care setting [1]. We appreciate a lot this paper but we have some concerns about it.

First, the authors did not declare which type of PDT was used for each patient. This is an important information while comparing PDT with ST since 6 percutaneous techniques have been introduced with the aim to simplify the technique and to improve patient safety [2]. PDT techniques are not equal in terms of intraoperative and postoperative complications, indeed the guidewire dilating forceps tracheostomy was accounted for an increased risk of major intraprocedural bleeding when compared with other PDT or ST [2]. According to this, we ask a clarification about this point.

Second, the authors reported a greater incidence of intraoperative hypoxia in ST than in PDT with a number of reasons why for this [1]. Hypoxia in COVID-19 patients is a robust risk factors for fatal outcome [3]. Previous studies showed that during PDT or ST the patients can be ventilated with a smaller endotracheal tube cuffed at the level of the carina while the fiber-optic bronchoscope can be kept just under the level of vocal cords and outside the endotracheal tube to control the different procedural steps [4, 5]. According to this, we suggested a modified method to perform

PDT and ST in COVID-19 with the aim to avoid the risk of hypoxia during the procedure [6].

Third, the authors did not report the duration of the hypoxia during the tracheostomy [1]. These data may be interesting in the view that COVID-19 patients underwent ST showed a huge decrease of perioperative P/F ratio and a slightly higher mortality compared with PDT [1].

Fourth, the authors reported that the majority of STs were performed in operation room while only 7 out of 77 STs were performed at bedside [1]. Performing bedside ST or PDT in critically ill patients at high risk of respiratory and cardiovascular instability, as COVID-19 patients, was proven to be safe [2]. Furthermore, COVID-19 patients must be moved as little as possible through the hospital and needed a dedicated operating room area; in this view, the authors should clarify their approach to move COVID-19 patients.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

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