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Letter to the Editor

Parenteral nutrition in oxygen escalation/de-escalation in SARS-CoV. When and how?



Dear Editor:

We have read with great interest how COVID-19 patients under parental nutrition (PN) are less likely to require oxygen escalation [1]. This observation is clinically significant on providing adequate nutrition in patients with respiratory insufficiency.

We agree that consensus concerning these patients' nutritional support is lacking. PN seems to be the nutritional choice in NIV patients for some authors, as Subramanian et al., most likely explained by the fear of complications associated with the presence of nasogastric tubes while using a conventional oro-nasal mask [1]. Despite this, post-pyloric feeding tubes are often used to favor early nutrition, ameliorate enteral nutrition tolerance, and diminish the risk of aspiration pneumonia [2].

However, we would like to highlight some aspects that must be carefully reviewed.

First, the authors fail to describe the type of respiratory insufficiency leading to NIV, and the criteria used to determine nutritional management, basing their choice merely on subjectivity which represents a great bias in this paper. Remarks were made on how recently PN is recommended when enteral nutrition (EN) is not practical or feasible; however there is no discussion on EN patients exclusion criteria nor the reason for not delivering EN. Moreover, the PN choice is explained as the clinician's strategy to avoid periods of NIV de-escalation, not accounting for other reasons such as improving NIV-patient ventilator synchronization. A strong background on nutrition strategies in NIV could have supported the focus of this paper.

Another aspect not accounted for is the increased risk of hospital complications such as those associated with the use of a catheter. Lastly, PN vs. EN cost-analysis is lacking; disadvantages in this area could have been a solid argument for reevaluating current practice.

Although nutrition in NIV patients is a challenge, and international guidelines on this matter are lacking, clinical decisions must be well supported. NIV and EN are not usually given simultaneously, increasing risks associated with the temporal reduction of oxygen supply or its removal to provide nutritional support. The literature has recently described the development and implementation of unique devices designed to allow EN support while providing NIV continuously [3,4]. Quintero et al., implemented a nasogastric tube adaptor that enables the use of up to two nasogastric tubes for nutritional support or gastric content control while continuing NIV [3]. This device has shown to decrease the risk of

oro-nasal masks' air leaks, patients' discomfort, and potential use in difficult airway in post-extubation failure [3,5].

When evaluating nutrition management in any patient requiring NIV, EN should be considered a feasible and safe option with the aid of novel devices designed for such purpose. However, further clinical randomized trials are needed in order to explore the best nutritional approach in NIV.

Authors' contributions

Oscar Iván Quintero: literature review, critical review manuscript, letter to editor writing. Maria Paula Garcia-Garcia: literature review, critical review manuscript, letter to editor writing. Antonio M. Esquinas: literature review, critical review manuscript, letter to editor writing.

Declaration of competing interest

authors declare no conflict of interest.

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