Conflicts of interest

The authors declare no conflicts of interest.

References


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Noninvasive ventilation after extubation

Ventilação não invasiva após a extubação

Dear Editor,

We read with great interest the study by Adiyeye et al.1 In their prospective work, they describe a very important reduction of post extubation respiratory failure and a huge improvement in intensive care unit length of stay provided by systematic prophylactic Non Invasive Ventilation (NIV) after extubation.

Nevertheless, some methodological flaws, somewhat limiting the conclusions, have to be underlined. First, the authors did not precisely describe the population. Therefore the number of patients harboring high risk of extubation failure does not appear in the article. Nevertheless, as stated by the authors, recent data suggest that prophylactic NIV is only useful in this subset of patients. Therefore, the principle of equipoise does not appear to be respected, meaning that the foreseeable need for the tested intervention might not have been taken into account, and that some patients with clear cut indication for the tested intervention might have been randomized in the group not providing it. This is further strengthened by the unexpectedly high rate of respiratory failure in the Venturi Mask Group. As a matter of fact, one may suggest that such a high incidence (i.e. 56%) of post extubation respiratory failure is unlikely to occur in a group of patients harboring low risk of extubation failure. Second, in most of the recent studies in the field, extubation failure incidence ranges between 10% and 20%. It has to be stressed that the small cohort described in the study was very unlikely to be powered enough to describe a significant effect of the described intervention, at least in a general ICU population.

This may suggest that whether the included population harbored specific, albeit non described, characteristics, or the effect of chance. Third, despite authors’ enthusiastic evaluation of NIV use as a first line treatment in post extubation failure, it has to be kept in mind that well designed studies displayed different conclusions. Indeed, in their prospective randomized study, Esteban et al. evidenced a higher rate of in ICU death in the subgroup of patients systematically treated with NIV support requiring subsequent intubation after extubation failure.2 Though NIV in post extubation failure could be beneficial in some specific setting (chronic obstructive pulmonary disease for instance), the estimated etiology of post extubation respiratory failure is not provided in the article. Therefore, we think that providing NIV to every patients experiencing post extubation failure remains a matter of debate. Altogether, though NIV remains one mainstream in extubation success, we think that current evidence remains to be followed, with the screening of patients who may benefit of this tool made before extubation for the prophylactic NIV, and the “rescue” NIV in case of post extubation failure discussed on case by case analysis.

Conflicts of interest

The authors declare no conflicts of interest.

References


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