QTc prolongation. Unfortunately the difference between life and death really can be measured in milliseconds!

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Noninvasive Mechanical Ventilation in Combination With Propofol Deep Sedation in Left Atrial Ablation Procedures: Yes, But Should Be Cautious

We read with great interest the study by Vevecka et al[1] where the effectiveness of the combined use of noninvasive mechanical ventilation (NIV) and deep Propofol sedation during ablation procedures was determined. We congratulate the authors and agree that Propofol sedation may be the right choice. However, some aspects in this study are not adequately explained in context to both sedation and methodology, which needs serious consideration.

The sedation assessment in the methodology needs critical attention. Although authors have presented the data of total Propofol in different groups, their effect was not objectively assessed, and we believe the bias of varying sedation level and drug dose cannot be denied. Use of either processed electroencephalographic based or at least one sedation scale has given objectivity.[2] Moreover, drug dose per kilogram of body weight will be more informative.

Similarly, although the authors have used gasometry at 30 minutes apart, it is felt that the hypoventilation assessment was not adequate. End-tidal capnometry during NIV or nasal cannula oxygen supplement is not very reliable and needs alternative techniques.[3] Hypoventilation is also poorly associated with peripheral oxygen desaturation.[4] Therefore, the information on how the authors monitored hypoventilation continuously will be necessary for readers to assess and accept the results.

Furthermore, the basis for choosing the indication of NIV for respiratory depression with pH <7.25 and pCO_2 > 50 mm Hg needs more explanation and back-up by evidence. As the context condition resembles acute hypercapnic respiratory failure and respiratory acidosis, we believe that the use of the British Thoracic Society/Intensive Care Society guideline for ventilatory management for acute hypercapnic respiratory failure or so would have given more objectivity and acceptability.[5] This is very important, because, changing the indication for NIV has the potential to change the result. Moreover, a good number of patients had obstructive sleep apnea. It is unknown if any of these patients already used NIV or continuous positive airway pressure that could make the results more objective.

Upper airway permeability and NIV settings have a critical relation. The interaction of sedation on the patency of the respiratory tract should be considered, especially in patients with increased airways resistance and prone to tongue base collapse and obstruction as in obstructive sleep apnea.[6,7] Moreover, Propofol sedation even with subhypnotic doses impairs the pharyngeal muscle function,[8] and makes the patient vulnerable for bronchoaspiration; deep sedation increases the gravity of the situation. Therefore, the information whether authors have considered the settings for back rate inspiratory and expiratory ratios, preventive measures for aspiration, etc are crucial.

The authors have given a new dimension to the deep Propofol sedation by nonanesthesiologist; however, before we apply the results in clinical practice, further study with proper preanesthetic evaluation, monitoring, standard definition, and a multidisciplinary team involving anesthesiologists as well, will be required.

Thanking you and the authors

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