EDITORIAL

Non invasive ventilation in surgical patients: Definitely yes, but wisely please

Ventilación no invasiva en pacientes quirúrgicos: Por supuesto que sí, pero con prudencia

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Nowadays, postoperative pulmonary complications (PPC) are among the main causes of death in the postoperative period. Pre-existing comorbidities, surgical approach, anesthetic technique (general versus loco-regional anesthesia), high tidal volume intraoperative mechanical ventilation and other well-known variables like massive transfusions are the most relevant risk factors for developing PPC. A careful perioperative management can offer relevant advantages in terms of length of hospital stay, costs and survival rate.

Non invasive ventilation (NIV) proved effective in the treatment of acute respiratory failure (ARF) due to a wide range of conditions like chronic obstructive pulmonary disease exacerbations or pulmonary edema. A growing number of studies evaluated its role in the prevention and treatment of postoperative ARF. NIV has been applied both in the preoperative phase, to improve the respiratory function in patients with severe functional limitation, or in the postoperative period to prevent or treat ARF. NIV resulted more effective when applied in patients at high-risk of PPC (in contrast to unselected patients), in thoracic or upper abdomen surgery, or when tracheal intubation should be best avoided, like in immunocompromised patients.

Recently, NIV has also been used in the intraoperative period, in patients in which tracheal intubation was refused or contraindicated (like patients with cystic fibrosis) or in healthy patients during deep sedation.

Finally, NIV-aided tracheal intubation has been reported by several authors in hypoxemic patients or in patients with difficult airway management requiring fiberoptic broncoscopy.

In the present issue, Dr. Esquinas published two reviews addressing all the above-mentioned new fields of application for NIV. His reviews are of great value, since best evidence is updated and summarized to allow a wise use of NIV. As a matter of fact, NIV can be a very effective tool, with the potential to significantly improve survival, but only if applied in the right manner to the right patient. NIV efficacy is greatly dependent on the art of choosing the best ventilator parameters, the best interface, the right timing of application, and for the right patients of course. Indications and contraindications must be well known; complications prevented and treated.

We are grateful to Dr. Esquinas for his effort to offer a comprehensive summary of all these key elements for the surgical and procedural setting. We believe that surgeons, anesthesiologists, intensivists, respiratory therapists

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and all the other healthcare staff involved in the perioperative period of patients at high risk of PPC will find inspiration for their daily practice reading the two reviews here published.

References