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Beware of etomidate and cricoid pressure during rapid sequence induction

Accepted: 25 May 2010
Published online: 6 August 2010
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Dear Editor,
We read with interest the article of Jaber et al. [1] describing the intensive care unit implementation of a ten-point care bundle for endotracheal intubation in critically ill patients. This care bundle decreased the rate of life-threatening events, including severe hypoxaemia and haemodynamic collapse, from 34 to 21%. Also, minor complications decreased from 21 to 9%.

While this care bundle for the high-risk procedure of endotracheal intubation is to be applauded, two points should be critically evaluated. First, the care bundle comprises the administration of etomidate as a first-line hypnotic in haemodynamically unstable patients. However, recent studies suggest that etomidate may increase mortality in critically ill paediatric and adult patients, because it inhibits vital steroidogenesis even after a single administration [2, 3]. Thus, another anaesthesia induction with less cardiocirculatory depression may be more suitable in haemodynamically unstable patients. For

example, propofol co-induction with 0.1 mg/kg midazolam [4] or 0.5 mg/kg ketamine [5] is propofol sparing and results in less cardiocirculatory depression than propofol given as a single hypnotic.

Second, during anaesthesia rapid sequence induction cricoid pressure has been a standard procedure in airway management to prevent reflux of gastric content. Recently, several studies have showed that it does not compress the oesophagus [6], does not prevent aspiration and may even increase gastric reflux [7]. In addition, bag-valve-mask ventilation, laryngoscopy and tracheal intubation may be hindered [8]. Thus, applying cricoid pressure in emergencies cannot be generally recommended.

In conclusion, in the intensive care unit, a care bundle for endotracheal intubation should be applied; however, administration of etomidate and employing cricoid pressure should be critically evaluated.

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