

## The effect of sedation with propofol on postoperative bronchoconstriction in patients with hyperactive airway disease

Dear Sir,

We read with interest the case reports by Pederson [1] on the effect of sedation with propofol in patients with hyperactive airway disease. We would like to make some comments regarding these cases. Among the mechanisms proposed to explain the beneficial effects of propofol on the airways (good control of the autonomic nervous system, muscle relaxation and interaction with extra and intracellular calcium levels) the author forgets to mention one very important fact: the level of sedation. In the cases discussed, repeated improvement of peak inspiratory pressure (PIP) occurred immediately following the administration of propofol which was always given just after midazolam. In the situation described, it is practically impossible to know if the decrease in PIP described is independent of the depth of sedation: no adequate measure of depth of sedation was performed. In addition, a possible synergy (or addition) between propofol's and midazolam's actions cannot be excluded either.

We believe that the depth of sedation must have increased, and that there must have been differences in this respect between the two sedative regimens. Unfortunately no sedation monitoring (EEG or evoked potential technique) was used in the cases. It would be interesting to demonstrate bronchodilating properties with the use of propofol but first it should be shown that these properties are independent of the depth of sedation, since increasing levels of sedation are associated with – amongst others – a decrease of muscular tone [2].

Yours faithfully,

A. Borgeat, O. Wilder-Smith and P.M. Suter

### References

1. Pedersen ChM (1992) The effect of sedation with propofol on post-operative bronchoconstriction in patients with hyperreactive airway disease. *Intensive Care Med* 18:45–46

2. Dobb GJ, Murphy DF (1985) Sedation and analgesia during intensive care. *Clin Anaesthesiol* 3:1055–1085

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### Author's reply

Dear Sir,

The author agrees with Dr. Borgeat and others that in the cases presented [1] a possible synergism between propofol and midazolam cannot be excluded. Concerning the depth of sedation in the cases presented, midazolam was administered together with morphine as infusion in dosages required to achieve adequate sedation as judged clinically and in accordance with earlier reports concerning the dose of midazolam needed for anesthesia and sedation [2].

Controlled clinical trials are needed to establish a bronchodilator action of propofol in patients with reactive airway disease.

Yours faithfully,

Charles M. Pederson

### References

1. Pederson ChM (1992) The effect of sedation with propofol on post-operative bronchoconstriction in patients with hyperreactive airway disease. *Intensive Care Med* 18:45–46
2. Michalk S, Moncorge C, Fichelle A, Hout O, Farinotti R, Desmonte JM (1988) Midazolam infusion for basal sedation in intensive care: absence of accumulation. *Intensive Care Med* 15:37–41

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### Errata

In the article by C. Jackson and A.R. Webb, "An evaluation of the heat and moisture exchange performance of four ventilator circuit filters" on pages 264–268 of this volume the legends to Figs. 2 and 3 should read as follows:

**Fig. 2.** Relative humidity at 1 and 24 h.  $p = 0.0001$  for DHS and DHC vs PUBC and IFT at 1 h and 24 h. □ DHS, ▨ DHC, ■ PUBC, ▩ IFT

**Fig. 3.** Absolute humidity at 1 and 24 h.  $p = 0.0001$  for DHS vs DHC, PUBC and IFT at 1 h and for DHS and DHC vs PUBC and IFT at 24 h. □ DHS, ▨ DHC, ■ PUBC, ▩ IFT

In the article by R.L. Chioléro et al. "Assessment of changes in body water by bioimpedance in acutely ill surgical patients" on pages 322–326 of this volume it is stated in the abstract (p. 322, line 14) and in the protocol (p. 323, line 8) that "a 60 min fluid challenge test was performed with normal saline solution, 0.25 ml/kg". This is obviously wrong.

The correct statement is "a 60 min fluid challenge test was performed with normal saline solution, 0.25 ml/kg/min."

The abstract P214 on page 171 of supplement 2 to Volume 18 of this journal was printed in error. This issue was circulated to the participants of the European Congress of Intensive Care Medicine in Barcelona. This abstract does not appear in the supplement circulated to subscribers.