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Regional anaesthesia and reactive airway disease

To the Editor:

We read with interest the recent review article of LM Pinto Pereira *et al.*¹ and commend them for their remarkable synthesis on the “Physiological mechanisms, pathophysiological alterations and therapeutic considerations.” However, in the first part of their paper dealing with “Perioperative management of the patient with reactive airways,” we were very surprised not to find mention of regional anaesthetic techniques. All the anaesthetic recommendations were directed towards general anaesthesia. We would like to point out that a regional anaesthetic technique should be considered systematically in patients with reactive airways and usually preferred to general anaesthesia^{2,3} although this does not always prevent intraoperative bronchospasm in asthmatic patients.⁴

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REPLY

Mercier *et al.* have raised the important consideration of regional anaesthesia in patients with hyperactive airways. Regional anaesthesia avoids the respiratory depression associated with general anaesthetic techniques, airway instrumentation and diminished airway reflexes. In pelvic, perineal and lower extremity surgery regional anaesthesia is associated with fewer respiratory complications and may be preferred to general anaesthesia.¹ However, the associated respiratory complications (83%)¹ with high spinal anaesthesia and epidural block make regional anaesthesia unsuitable for upper abdominal surgery. Inhibition of sympathetic innervation may precipitate a sharp decrease in blood pressure and severe bronchospasm in the asthmatic patient² from the combination of neural blockade of the adrenal gland,³ interference with pulmonary sympathetic innervation⁴ and unopposed vagal activity.² Additionally, loss of expiratory muscle power may compromise the condition of patients with airway obstruction and who rely on active exhalation for adequate gas exchange.⁵

The principle advantage of regional anaesthesia is continuous neurological evaluation which may be lost in patients who are not co-operative. Sedatives and analgesics in these patients may make respiratory compromise a distinct possibility.

Our review aimed to describe the pathophysiology of the disease and provide updated information on current and new therapies in patients who receive general anaesthesia. Drs. Mercier, Bouaziz and Benhamou have made a valuable comment which stresses the importance of preoperative assessment and the application of regional over general anaesthesia when possible in the asthmatic patient.

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