

α may prove beneficial in pathological conditions, for example in patients with diabetes² and during cardiac surgery involving cardiopulmonary bypass,³ when levels of TNF- α are increased.

Tumour necrosis factor- α can stimulate up-regulation of inducible nitric oxide synthase (iNOS) activity and nitric oxide production in human endothelial cells, which can be accompanied by a burst production of intracellular reactive oxygen species, such as superoxide anion,⁴ in excess of the endogenous antioxidant defense. Both nitric oxide and superoxide anion are highly reactive and unstable radicals that can react rapidly to form peroxynitrite, a cytotoxic compound. This reaction is approximately three times faster than the dismutation of superoxide anion by the superoxide dismutase. Increased peroxynitrite formation may not only cause further enhanced oxidative stress as commented on by Rodriguez-Lopez *et al.*,¹ it may also create a condition of cellular stress called "nitrosative stress" which can be estimated by measuring the production of nitrotyrosine. Nitrosative stress has been shown to cause severe hypotension, profound vasodilatation, cardiac depression and multiple organ failure in various models of septic shock. On day seven, renal iNOS protein expression was significantly higher in the sevoflurane group relative to the propofol group, accompanied by elevated superoxide anion production, in the study of Rodriguez-Lopez *et al.* Therefore, nitrosative stress could have been apparent in the sevoflurane group, at least in the kidney, and possibly in other organs as well. However, their study was not designed to assess nitrosative stress, nor were related hemodynamic data presented.

Propofol has been reported to reduce endotoxin-induced increase of iNOS expression, nitrotyrosine formation and lung injury,⁵ and attenuate postoperative myocardial injury in patients compared to isoflurane.⁶ However, additional factors such as the duration of postoperative mechanical ventilation and postoperative management must be considered to fully ascertain potential outcome benefits related to propofol treatment for the indication studied by Rodriguez-Lopez *et al.*¹

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Poor inter-rater reliability on mock anesthesia oral examinations

To the Editor:

Further to the recently-published study by Jacobsohn *et al.*,¹ we draw your attention to the fact that the American Board of Anesthesiology (ABA) has not used the rating system reported in the above referenced study since 2001. With both the previous rating system and the one that replaced it, ABA oral examiners rate the candidate independently. The examiner's ratings are a synthesis of the degree and frequency with which the candidate demonstrated the abilities the ABA oral examination is designed to assess.

The current oral examination scoring system uses a multi-facet psychometric model that takes into account variation in task difficulty and grading severity of individual examiners when it computes a candidate's test scores. The ABA is committed to giving oral examinations that are as fair as possible and continually assesses ways to improve all of its evaluation processes, including the oral examination.

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Reference

- 1 *Jacobsohn E, Klock PA, Avidan M; Oral Examinations Group.* Poor inter-rater reliability on mock anesthesia oral examinations. *Can J Anesth* 2006; 53: 659–68.

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We welcome submissions in consideration for publication in our *Correspondence* section. Letters to the Editor must contain original material that has not been published previously, nor is under consideration for publication elsewhere. Letters commenting on previously published articles in the *Journal* must not exceed 400 words (excluding references), and must be received within four weeks after publication of the original article. All other types of letters must not exceed a count of 600 words, with a maximum of five references and one figure or table. No more than three authors may sign a letter, and any financial associations or competing interests must be disclosed. Such disclosure will be published. Letters that do not adhere to these instructions will not be considered.

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