LETTERS

Severe Bradycardia After Propofol Induction

To the Editor: We wish to report the occurrence of severe bradycardia during induction of anesthesia with propofol. A 56-year-old woman presented for left acromioplasty in an outpatient surgery center. Her medical history included high blood pressure, diabetes, seizures, and gastroesophageal reflux. Medications on admission included losartan, esomeprazole, bisoprolol, chlorthalidone, oxcarbazepine, simvastatin, sertraline, metformin, and ezetimibe. The patient's gastroesophageal reflux was well controlled with oxcarbazepine, and she was asymptomatic. Physical examination revealed a pleasant well-nourished adult woman, who weighed 80 kg and was 165 cm tall. Her heart rate was regular at 53 beats/min and the arterial blood pressure was 148/81 mm Hg. The remainder of the physical examination was unremarkable.

The patient was transferred to the operating room. Routine monitoring was applied. Her heart rate was 52 beats/min, arterial blood pressure was 145/80 mm Hg, and oxygen saturation was 100%. Anesthesia was induced with propofol, 2 mg/kg. A size 4 LMA was inserted without difficulty. The patient breathed 100% oxygen with sevoflurane. While the patient was about to be placed in the beach chair position, the electrocardiogram showed the heart rate gradually changed from 50 beats/min to 30 beats/min. The period of severe bradycardia persisted for approximately 25 to 30 seconds. The bradycardia quickly responded to an intravenous bolus of atropine, and the heart rate increased to 60 beats/min. Her arterial blood pressure remained 140/80 mm Hg, and her oxygen saturation was 100% during this period of time.

Severe bradycardia after administration of propofol has been reported.[1,2] The mechanism of bradycardia may be caused by depression of sympathetic cardioaccelerator tone.[3] Beta blockers can cause bradycardia. lntraoperative bradycardia requiring treatment was more frequent in the patients who received beta blocker before surgery.[4] This patient took her beta blocker 2 hours before surgery. In combination with cardiac effect of propofol, bradycardia was induced. The important implication arising from this case is that propofol should be used cautiously in patients receiving beta blocker because its use in these patients may synergistically combine with the sinoatrial nodal blocking effect to produce bradycardia.

REFERENCES

1. Thomson SJ, Yate PM. Bradycardia after propofol infusion [letter]. *Anaesthesia.* 1987;42(4):430.
2. Egan TD, Brock-Utne JG. Asystole after anesthesia induction with fentanyl, propofol, and succinylcholine sequence. *Anesth Analg.* 1991;73(6):818-820.
3. Krassioukov AV, Gelb AW, Weaver LC. Action of propofol on central sympathetic mechanism controlling blood pressure. *Can J Anaesth.* 1993;40(8):761-769.
4. Yang H, Raymer K, Bulter R, Parlow J, Roberts R. The effects of perioperative beta-blockade: results of Metoprolol after Vascular Surgery (MaVS) study, a randomized controlled trial. *Am Heart J.* 2006:152(5):983-990.

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Authors' Correction: Chrysin is a *Passiflora coerulea* Extract

To the Editor: In articles by Beaumont et al[1] and Brown et al,[2] the authors investigated the effects of chrysin in animal models; however, they refer to chrysin as a "*Passiflora incarnata* extract." This is incorrect because: (1) chrysin is a single compound (a flavone derivative) and not an extract, which is a mixture of several compounds, and (2) chrysin does not occur in *Passiflora incarnata* as stated by the authors. It occurs mostly in *Passiflora coerulea*, which is a different species of Passiflora that is widely used in Brazil. Actually, *P. incarnata* is devoid of chrysin.

REFERENCES

1. Beaumont DM, Mark TM Jr, Hills R, Dixon P, Veit B, Garrett N. The effects of chrysin, a *Passiflora incarnata* extract, on natural killer cell activity in male Sprague-Dawley rats undergoing abdominal surgery. *AANA J.* 2008;76(2):113-117.
2. Brown E, Hurd NS, McCall S, Ceremuga TE. Evaluation of the anxiolytic effects of chrysin, a *Passiflora incarnata* extract, in the laboratory rat. *AANA J.* 2007;75(5): 333-337.

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Response: Dr Butterweck is correct concerning the April 2008 *AANA Journal* article titled "The effects of chrysin, A *Passaflora incarnata* Extract, on Natural Killer Activity in Male Sprague-Dawley Rats Undergoing Abdominal Surgery." We should have more accurately stated that chyrsin is a flavone derived, not extracted, from the Passiflora plant. Furthermore, although Zanoli and colleagues suggest that chrysin is a flavone derived from *Passiflora incarnata*, most authors agree that chyrsin is a derivative of *Passiflora coerulea*. Nevertheless, in our study, chyrsin (purchased from Sigma-Aldrich Incorporated, St Louis, Missouri) administered to male Sprague-Dawley rats did indeed attenuate surgical suppression of NK cell activity.

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Response: In the October 2007 *AANA Journal* article titled, "Evaluation of the anxiolytic effects of chrysin, a *Passiflora incarnata* extract, in the laboratory rat," the word "extract" should be replaced with the word "flavone." In addition, although chrysin may be found in low concentrations in *Passiflora incarnata*, it occurs abundantly in *Passiflora coerulea*. Therefore, *Passiflora incarnata* should be revised to read *Passiflora coerulea*.

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