Visual analog scale after the surgery

Dose of postoperative analgesic

FIGURE Visual analogue pain scale scores after surgery (left). Pain scores of Group 1 were significantly higher than those of Group 2 and Group 3. The postoperative consumption of diclofenac during the first 24 hr and the next 24 hr after surgery was higher in Group 1 (right). Data are mean $\pm$ SD. ** $P < 0.01$.

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Repeated supraventricular tachycardia in an asymptomatic patient with Wolff-Parkinson-White syndrome during Cesarean delivery

To the Editor:

Several reports have indicated that pregnancy predisposes asymptomatic patients with Wolff-Parkinson-White (WPW) syndrome to supraventricular tachycardia (SVT).^{1,2} We report a case of repeated SVT in a 36-yr-old woman with WPW syndrome during anesthesia for Cesarean delivery (C/D). The patient

was scheduled for C/D due to cephalopelvic disproportion. WPW syndrome had been diagnosed at age 18, however, she had had no attacks for 18 years and was not taking any medication. Her heart rate (HR) was regular with sinus rhythm before C/D. Mepivacaine (2%; 13 mL) was injected into the epidural space and sensory analgesia reached the T4 level. The baby was born uneventfully and blood losses were 450 mL. At the end of the operation, SVT occurred suddenly, HR increased to 190 beats·min⁻¹ and blood pressure decreased. At first, we tried vagal stimulation (Valsalva maneuver and carotid massage) but the SVT did not stabilize. Next, verapamil (3.7 mg) was administered and the HR stabilized to sinus rhythm. Postoperatively, SVT occurred three other times and we administered verapamil (5 mg) and disopyramide (50 mg) to stabilize the HR. Oxytocin administration, anxiety, pain, etc., have been reported to trigger SVT in parturients with WPW syndrome.³ Because of the timing in our case, it is difficult to say what triggered the SVT exactly. However, anesthesiologists should be aware of the possible recurrence of repeated SVT, even in the asymptomatic patient, with WPW syndrome.

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Landiolol for the treatment of tachyarrhythmia associated with atrial fibrillation

To the Editor:

The important role of β -blockers in the treatment of cardiovascular disease is well established. However, complications such as bronchoconstriction and hypotension have been reported. Landiolol hydrochloride (landiolol), $\{(-)-[(S)-2,2\text{-dimethyl-1,3-dioxolan-4-yl}]methyl-3-[4-[(S)-2\text{-hydroxy-3-(2-morpholino carbonylamino) ethylamino}]proxylphenylpropionate monohydrochloride}\}$, is a novel ultra-short-acting β -blocker that has high β_1 -selectivity ($\beta_1/\beta_2 = 255$) and a short elimination half-life (four minutes in healthy subjects).^{1–3} We wish to report the use of landiolol for the management of tachyarrhythmia in a 67-yr-old man with severe mitral regurgitation, chronic atrial fibrillation (AF) and asthma. The patient presented for urgent cholecystectomy because of rapidly progressing suppurative cholecystitis. After induction of general anesthesia with fentanyl $3\text{ }\mu\text{g}\cdot\text{kg}^{-1}$ and midazolam 3 mg, severe hypotension developed due to AF-tachyarrhythmia with a heart rate of over $145\text{ beats}\cdot\text{min}^{-1}$. Both the hypotension and a medical history of asthma prevented the use of verapamil or propranolol. Diltiazem 2 to $5\text{ }\mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ *iv* for 30 min did not show any efficacy. Consequently, a bolus of landiolol $62.5\text{ }\mu\text{g}\cdot\text{kg}^{-1}$ *iv* was given in 30 sec and a continuous infusion was initiated at a rate of $10\text{ }\mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$. One minute after, heart rate decreased to $96\text{ beats}\cdot\text{min}^{-1}$ and stabilized at 80 to $84\text{ beats}\cdot\text{min}^{-1}$ after five minutes without bronchoconstriction or hypotension during the procedure. Our

experience with this patient suggests that landiolol may be useful to improve AF-associated tachyarrhythmias. The drug was administered safely to this patient with asthma and hypotension.

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The difficult airway paradigm revisited

To the Editor:

Dr. O. Hung, in his editorial, “Airway management: the good, the bad, and the ugly” uses emergency endotracheal intubation in a morbidly obese patient to illustrate the special skills expected and demanded of the anesthesiologist.¹ Dr. Hung’s discussion on how difficult intubation, in general, should be managed accurately reflects mainstream opinion within the anesthesia community. Current thinking favours development of newer and better airway devices as solutions to the difficult intubation.

For most anesthesiologists, the oral laryngoscopic approach remains the most immediate and practical method to intubate the trachea. It may be the only course of action in areas of a facility lacking specialized airway equipment. If, during intubation, one experiences difficulty in visualizing the larynx, and placing the endotracheal tube also becomes problematic, the likelihood of patient injury becomes real. The presently accepted belief is that poor visualization of the larynx is the key factor hindering introduction of the endotracheal tube into the larynx: the solution continues to be a search directed towards discovering new ways of improving laryngoscopic view. Poor visualization of the glottis, therefore, has become the de facto benchmark for difficult intubation. The error in this