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References

- 1 *Gleicher N, Meller J, Sandler RZ, Sullum S.* Wolff-Parkinson-White syndrome in pregnancy. *Obstet Gynecol* 1981; 58: 748–52.
- 2 *McKenna WJ, Harris L, Rowland E, Whitelaw A, Storey G, Holt D.* Amiodarone therapy during pregnancy. *Am J Cardiol* 1983; 51: 1231–3.
- 3 *Obero GS, Taubih N.* Anaesthesia for caesarean section in a patient with Wolff-Parkinson-White syndrome. *PNG Med J* 1991; 34: 65–8.

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), $\{(-)-[(S)-2,2\text{-dimethyl-1,3-dioxolan-4-yl}]methyl-3-[4-[(S)-2\text{-hydroxy-3-(2-morpholino carbonylamino) ethylamino}]proxy]phenylpropionate monohydrochloride\}$, 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 $3 \mu\text{g}\cdot\text{kg}^{-1}$ 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 $5 \mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$ *iv* for 30 min did not show any efficacy. Consequently, a bolus of landiolol $62.5 \mu\text{g}\cdot\text{kg}^{-1}$ *iv* was given in 30 sec and a continuous infusion was initiated at a rate of $10 \mu\text{g}\cdot\text{kg}^{-1}\cdot\text{min}^{-1}$. 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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References

- 1 *Atarashi H, Kuruma A, Yashima M, et al.* Pharmacokinetics of landiolol hydrochloride, a new ultra-short-acting β -blocker, in patients with cardiac arrhythmias. *Clin Pharmacol Ther* 2000; 68: 143–50.
- 2 *Muraki K, Nakagawa H, Nagano N, et al.* Effects of ONO-1101, a novel β -antagonist, on action potential and membrane currents in cardiac muscle. *J Pharmacol Exp Ther* 1996; 278: 555–63.
- 3 *Iguchi S, Iwamura H, Nishizaki M, et al.* Development of a highly cardioselective ultra short-acting β -blocker, ONO-1101. *Chem Pharm Bull (Tokyo)* 1992; 40: 1462–9.

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