

Systemic intravenous lidocaine for perioperative pain management: a call for changing indications in the package sheet

P. Grassi, G.M. Bregant, M. Crisman

Department of Anesthesia and Intensive Care, Azienda Ospedaliero-Universitaria "Ospedali Riuniti", Trieste, Italy

Obtaining adequate analgesia after major surgery is a problematic issue and postoperative pain still imposes a major burden of suffering on surgical patients (1).

Intravenous patient-controlled opioids and epidural local anesthetics, the mainstay modalities in acute surgical pain treatment, expose the patients to potentially serious side effects (2).

The perioperative administration of systemic intravenous lidocaine has been shown to be an effective method in postoperative pain management with a favorable effect on pain scores, opioid consumption and recovery after surgery without any clear evidence of harm (3, 4). Although the current literature is univocal about its efficacy and safety (5-7), the systemic intravenous use for perioperative pain management is still not mentioned in the lidocaine package sheet.

We believe that this fact, leading health practitioners to deal with the risks of an off-label prescription, hampers the diffusion of an effective, safe, simple, cheap and widely accessible method of perioperative pain control.

With millions of major surgical interventions carried out every year it is reasonable to speculate that pharmaceutical companies will de-

rive a consistent benefit from expanding, with the due warnings of potential side effects, the lidocaine indications as we here propose.

Alternatively, a previous Italian experience in the field of pediatric anesthesia showed that a process leading to formal authorization for off-label uses can be obtained for drugs for which evidence of efficacy and safety in purposes different from the ones cited in the product label exists in the scientific literature (8).

Additionally, researchers, backed by scientific societies, could collaborate with donors in implementing large clinical trials with the aim of definitely consolidate the already existing evidence.

In conclusion, while we advocate further high-quality research on the subject we suggest that regulating bodies, scientific societies and industries should as soon as possible take steps to include the systemic intravenous use for perioperative analgesia among the lidocaine formal indications.

REFERENCES

1. Wu CL, Raja SN. Treatment of acute postoperative pain. *Lancet*. 2011; 377: 2215-25.
2. Paul JE, Buckley N, McLean RF, Antoni K, Musson D, Kampf M, et al. Hamilton acute pain service safety study. *Anesthesiology*. 2014; 120: 97-109.
3. Kaba A, Laurent SR, Detroz BJ, Sessler DI, Durieux ME, Lamy ML, et al. Intravenous lidocaine infusion facilitates acute rehabilitation after laparoscopic colectomy. *Anesthesiology*. 2007; 106: 11-18.
4. Marret E, Rolin M, Beaussier M, Bonnet F. Meta-analysis of intravenous lidocaine and postoperative recovery after abdominal surgery. *Br J Surg*. 2008; 95: 1331-8.

Corresponding author:

Paolo Grassi, M.D.
Department of Anesthesia and Intensive Care
Azienda Ospedaliero-Universitaria "Ospedali Riuniti"
34142 Trieste, Italy
e-mail: paolo.grassi@aots.sanita.fvg.it

5. McCarthy GC, Megalla SA, Habib AS. Impact of intravenous lidocaine infusion on postoperative analgesia and recovery. A systematic review of randomized controlled trials. *Drugs*. 2010; 70: 1149-63.
6. Vigneault L, Turgeon AF, Coté D, Lauzier F, Zarychanski R, Moore L, et al. Perioperative intravenous lidocaine infusion for postoperative pain control: a meta-analysis of randomized controlled trials. *Can J Anesth*. 2011; 58: 22-37.
7. Farag E, Ghobrial M, Sessler DI, Dalton JE, Liu J, Lee JH, et al. Effect of perioperative intravenous lidocaine administration on pain, opioid consumption, and quality of life after complex spine surgery. *Anesthesiology*. 2013; 119: 932-40.
8. Salvo I, Landoni G, Mucchetti M, Cabrini L, Pani L. Use and reimbursement of off-label drugs in pediatric anesthesia: the Italian experience. *Pediatr Anaesth* 2014. Epub ahead of print. PMID:24796404.

Cite this article as: Grassi P, Bregant GM, Crisman M. Systemic intravenous lidocaine for perioperative pain management: a call for changing indications in the package sheet. *Heart, Lung and Vessels*. 2014; 6(2): 137-138.

Source of Support: Nil. **Conflict of interest:** None declared.



Copyright of Heart, Lung & Vessels is the property of Edizioni Internazionali srl EDIMES Division and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.