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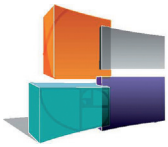

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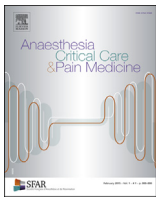

Editorial

Opioid-free anaesthesia: The need for evidence-based proofs

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Opioid-free anaesthesia (OFA) is an emerging technique and a recent research perspective. OFA is based on the idea that avoiding intraoperative opioids would be associated with better postoperative outcomes. Reducing opioids during general anaesthesia have been proposed for many years in the literature. OFA is based on the concept of multimodal anaesthesia, as one drug will not replace opioids. It is the association of drugs and/or techniques that allows a good quality OFA. The association can combine NMDA antagonists (ketamine, lidocaine, magnesium sulfate), sodium channel blockers [local anaesthetics (LA)], anti-inflammatory drugs (NSAID, dexamethasone, LA) and alpha-2 agonists (dexmetedomidine, clonidine). Of course, all these drugs/techniques will not be administered to the same patient. Indeed, for toxicity reasons, LA can only be administered by one route at a time (either regional anaesthesia/analgesia or IV lidocaine). For haemodynamic stability, alpha-2 agonists are the drugs of choice and magnesium sulfate could also help. They are however associated with a risk of hypotension and bradycardia. Indeed, all these drugs administered alone have documented side effects, which have to be known and prevented by anaesthesiologists. OFA is feasible but is it associated with clinically meaningful benefits for patients? Proofs are scarce in the literature. In the past 10 years, only 10 RCTs have been published on the subject. They reported a benefit of OFA in terms of postoperative morphine consumption [1], pain intensity [2] and postoperative nausea and vomiting [3]. However, these studies were usually small (from 20 to 124 patients) and the results need to be confirmed by large-scale studies. In this issue of ACCPM, Bello et al. [4] suggest a retrospective study on the potential benefits associated with OFA in thoracic surgery. They compared postoperative pain relief after OFA or opioid-based anaesthesia with both groups receiving a thoracic epidural analgesia (TEA). Despite the methodological flaws and the small number of patients, this study is of interest, as studies on OFA during thoracic surgery have not been published so far. Indeed, thoracic surgery being one of the most painful surgery, one could hypothesise that OFA would be of interest to reduce postoperative pain. Despite being not clinically meaningful, the authors choose the cumulative first 48 postoperative hours epidural ropivacaine consumption as the primary outcome. It was significantly lower in the OFA group. More interestingly, patients were less painful 6 and 24 hours after the surgery with lower morphine consumption in PACU in the OFA group. These first results should be further confirmed with a RCT. OFA is a new exciting technique! However, it cannot be formally recommended as further evidence-based proofs of its benefits are needed.

Disclosure: BBraun, Aspen, Orion

References

[1] Hwang. et al. Dexmedetomidine versus remifentanil in postoperative pain control after spinal surgery: a randomized controlled study. BMC Anesthesiol 2015;15:21.
[2] Mullier. et al. A Randomized Controlled, Double-Blind Trial Evaluating the Effect of Opioid-Free Versus Opioid General Anaesthesia on Postoperative Pain and Discomfort Measured by the QoR-40. J Clin Anesth Pain Med 2018;2:15.
[3] Ziemann-Grimmel. et al. Opioid-free total intravenous anaesthesia reduces postoperative nausea and vomiting in bariatric surgery beyond triple prophylaxis. Br J Anesth 2014;112:906–11.
[4] Bello. et al. Effect of opioid-free anaesthesia on postoperative epidural ropivacaine requirement after thoracic surgery: A retrospective unmatched case-control study. Anaesth Crit Care Pain Med 2019. http://dx.doi.org/10.1016/j.accpm.2019.01.013 [pii: S2352-5568(18)30281-9, (Epub ahead of print)].

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