Medication errors in delivery room: Avoidable?

Dear Editor,

We would like to refer to a case that happened at our obstetric department to highlight the importance of analyzing and communicating the adverse incidents that occur in our daily practice, where anesthesiology has become a pioneering specialty.[1]

A 33-year-old woman, full-term primiparous was admitted to our hospital due to premature rupture of membranes and uterine dynamics. Epidural analgesia was provided without incident. An initial bolus of levobupivacaine 0.125% 7 mL was administered, leaving a levobupivacaine 0.125% infusion at 7 mL/h with 7 mL boluses, maximum two boluses per hour. After 20 min, she started with supraventricular tachycardia and significant hypotension that did not subside with usual management (left lateral decubitus, fluids, vasopressors, and vagal stimulation). A blood sample was taken and hypokalemia, hyperglycemia, and hyperlacticaemia were found. Because of her personal history of eating disorders, the patient was reinterrogated although she denied having taken diuretics and/or laxatives and vomiting, diarrhea, endocrine or eating disorders. Symptomatic treatment with fluids, lorazepam, and potassium replacement was implemented and after 4 h, the situation began to gradually reverse. When spontaneous uterine dynamics restarted, she requested the epidural again, so the previous catheter was removed, and a new one was placed without incident. Finally, a vaginal delivery without complications took place.

The case was analyzed retrospectively, and it was observed that where the physiological saline solution was normally stored, there were two ritodrine ampoules. Consulting the technical specifications sheet of this drug, we noticed that the side effects of a ritodrine overdose can be sinus tachycardia, severe hypokalemia with muscle weakness and thirst, hyperglycemia, and hyperlacticaemia among others.[2] This case was probably due to 0.25% levobupivacaine was diluted with ritodrine, thinking that it was a physiological saline solution for the initial epidural bolus with 0.125% levobupicaine, and the drug was absorbed by epidural route. This error was reported through the hospital notification system with the aim of not repeating the mixture of drugs in the same storage place and to advise for greater observation of drugs labeling by the personnel in charge of their administration.

Medication errors are a common cause of morbi-mortality in patients, and the impact varies from no harm to serious adverse effects, including death.[3] Luckily, they are one of the most preventable if measures are implemented on both an individual and collective basis.[4] Administering a medication by the wrong route supposes 8% of medication errors in the perioperative period.[3] Although it looks like a small...
percentage, the seriousness of the consequences should make us aware of always checking what and how we are administering. Fortunately, the symptoms that we observed were moderate in intensity and decreased 4 h after ritodrine administration, and we do not evidence other possible side effects or more serious adverse reactions.

Given all the above, it seems clear that every effort should be made to report and prevent drug-related errors.

Informed consent
Informed consent from the patient was obtained to refer this case.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

References
1. Charco Roca LM, Ortiz Sánchez VE, del Pino Moreno AL. Infusión errónea de paracetamol por vía epidural. Rev Esp Anestesiol Reanim 2014;61:457-9.
2. Agencia Española del Medicamento y Productos sanitarios. Ficha técnica Ritodrine. 2017 Aug. Available from: https://cima.aemps.es/cima/pdfs/es/ft/51227/51227_ft.pdf. [Last accessed on 2021 Jul 07].
3. Dhawan I, Tewari A, Sehgal S, Sinha AC. Medication errors in anesthesia: Unacceptable or unavoidable? Braz J Anesthesiol 2017;67:184-92.
4. Díaz-Cañabate JL, Bartolomé Ruibal A, Santa-Ursula Tolosa JA, González Arévalo A, García del Valle Manzano S. Sistemas de comunicación de incidentes y seguridad del paciente en anestesia. Rev Esp Anestesiol Reanim 2006;53:488-99.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.