



## Analgesia mode after cesarean section: PCEA or EM?

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To the Editor:

With great interest, we read the paper wrote by Liu et al. which suggested that patient-controlled epidural analgesia (PCEA) might provide better analgesia than epidural morphine alone and contribute an independent protective factor for supplementary analgesia after cesarean section (CS). [1]. We would like to highlight a few points and reservations.

First, we appreciate that the authors tremendously balanced a battery of crucial influencing factors, taking into account the merits of a retrospective design. However, we notice that they might dismiss some important preoperative and intraoperative factors which may influence postoperative pain during the post-CS, including preoperative anxiety, type of incision, spinal anesthesia without adjuvants and duration of surgery [2, 3]. The authors should go one step further to provide these data and perform further statistical analysis.

Second, the authors mentioned that BMI was considered in the logistic regression model, however, the data they provided in Table 1 only included weight. We know that most of studies use BMI instead of weight, simple because BMI is more accurate than weight in terms of reflecting real health state of the patient. The author should confirm this.

Third, we agree with that PCEA using local anesthetics and opioid regimen was a good choice for pain relief in the CS setting, because it can pose both high analgesic efficacy and safety profile when doses of both drugs were optimally scaled. The authors pointed that the concentration of ropivacaine they used was 0.12% in PCEA regimen, which was

higher than our center (0.1%) [4]; therefore, local anesthetics-induced motor block as another important adverse effect should also be emphasized, in order to facilitate a rapid recovery of parturients.

In all, adding above-mentioned information will undoubtedly control some confounding factors and make the current conclusions more convincible. We thank Liu et al. for their innovative work on providing us an idea on analgesia mode after CS, as well as urging us to seek optimal doses of local anesthetics and opioid for PCEA.

### Declarations

**Conflict of interest** No competing interest declared.

### References

1. Liu H, Wang Z, Zhang Y, Zhang Y, Zhang Y, Tang S. Comparison of patient-controlled epidural analgesia and epidural morphine for post-cesarean section analgesia: experience from a tertiary center in China. *J Anesth*. 2024. <https://doi.org/10.1007/s00540-024-03367-9>.
2. Bekele Z, Ayana M, Haile M, Tesfaye A, Tasew A. Incidence and predictors of postoperative severe acute pain within 24 hours after cesarean section performed under spinal anesthesia at public hospitals in West Shoa, Ethiopia, 2022 prospective cohort study. *Ann Med Surg (Lond)*. 2023;85(9):4239–47.
3. Borges NC, Pereira LV, de Moura LA, Silva TC, Pedroso CF. Predictors for moderate to severe acute postoperative pain after cesarean section. *Pain Res Manag*. 2016;2016:5783817.
4. Sun L, Guan S, Dou D, Feng Y, Zhang H, An H. Efficacy and safety of different doses of epidural morphine coadministered with low-concentration ropivacaine after cesarean section: a retrospective cohort study. *Front Pharmacol*. 2023;14:1126174.

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