



## Reply to “Is opioid free analgesia first choice for cesarean delivery?”

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To the Editor

We appreciate receiving comments from Biava, et al. [1] regarding our manuscript entitled with “Respiratory depression following cesarean section with single-shot spinal with 100 µg morphine.” [2]. This study showed that 48.4% patients undergoing cesarean section with 0.1 mg intrathecal morphine experienced sustained bradypnea, which was defined as respiratory rate < 8 breaths/min lasting at least 25 s, at least once, but these episodes constituted only a small portion of the total respiratory monitoring time. Then, we concluded that it may not be necessary to use a continuous respiratory monitoring in all healthy young women after cesarean section.

First, Biava, et al. stated that our conclusion contradicts the consensus statement provided by Society for Obstetric Anesthesia and Perinatology, which recommends that every 2 h for 12 h postoperatively scheduled respiratory monitoring in low-risk pregnant women who received low-dose intrathecal morphine (0.05–0.15 mg) [3]. We routinely perform vital sign monitoring in all patients which confront the guidelines. However, we have concluded that specific continuous respiratory rate measurement requires individual patient selection.

Second, Biava, et al. pointed out the effects of intrathecal opioids on new-born and lactogenesis. However, our study focused on postoperative respiratory depression and other outcomes for neonates and for patients other than respiratory depression were not assessed. Unfortunately, therefore, we are unable to provide them. Moreover, intrathecal fentanyl and morphine with local anesthetic have benefited postoperative analgesia [4]. Given the negative impacts of postoperative acute pain on mid-term depression after

cesarean section, opioids use during cesarean section would be acceptable [5].

Finally, continuous respiratory monitoring may not be necessary in all patients, as approximately half women had apnea events, but for only a few period, and there were no adverse events requiring antagonist, naloxone. We believe that it is important to screen patients at high risk in advance.

**Data availability** This article has no data.

### Declarations

**Conflict of Interest** The authors declare that they have no conflict of interest.

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