Letter to the editor: in response to 'The role of regional anesthesia and analgesia in enhanced recovery after colorectal surgery'

To the Editor

We read with great interest the review of El-Boghdadly *et al*, which aimed to examine the impact of regional anesthesia on colorectal surgery within an Enhanced Recovery After Surgery (ERAS) setting.[1] This effort is commendable because adequate analgesia with minimal side effects is likely to facilitate other elements of an ERAS program, such as early mobilization and enteral nutrition. Neuraxial or regional techniques are important analgesic options, even though the review demonstrate that further research is required to determine the exact role of these options. Still, there are three remarks we wish to add to their review.

First, as a correction and question, they state in the text that the trials of Wongyingsinn *et al* and Koning *et al* compared intrathecal bupivacaine with intrathecal bupivacaine with 200–240 μg morphine, which is not valid.[2 3] In their online supplemental data file, it is correctly stated that we compared an intravenous loading dose of piritramide with intrathecal bupivacaine with 240–300 μg morphine.[2] Wongyingsinn compared intrathecal bupivacaine with 150–200 μg morphine to Patient Controlled Intravenous Analgesia administered morphine.[3] Furthermore, there may be an error with the references to the studies of Wongyingsinn *et al*.[3 4] It is unclear to us if both studies are included for analysis—which should lead to 14 included studies or only the study with intrathecal analgesia—mentioned in the text, but not in figures 2 and 3, or only the study with epidural analgesia—mentioned in their figures 2 and 3, but not in the text.

Second, they state that a commonly used dose of intrathecal morphine is approximately 100 μg, but this may not be true for abdominal surgery.[5] In contrast to lower extremity surgery or cesarean sections, commonly used doses for abdominal surgery are between 200 and 400 μg of morphine. A recent review could not demonstrate a dose-dependent analgesic effect for intrathecal morphine, but the limited distribution in dose may have caused this.[5] We agree with the authors that further research is required to dose intrathecal morphine for abdominal surgery, but we would argue that it ranges between 200 and 300 μg of morphine. This is supported by a study of Sarma and Boström, involving abdominal, but not colorectal surgery.[6]

Third, we would like to argue another conclusion respectfully. We believe that the possible prolonged length of stay (LOS) after epidural analgesia in laparoscopic is a bit overstated after one potentially confounded study by Levy *et al* and one study without significant difference of Day *et al*. The (side) effects of epidural analgesia depend on its management and handling, making it difficult to interpret if it is the epidural analgesia itself or its management. Moreover, let us not lose sight of the primary goal of analgesia: high patient satisfaction, mediated through reduced pain scores and opioid consumption, leading to minimal side effects. The LOS is affected by many other factors. Not delaying recovery and providing better analgesia should be sufficient to be a superior method of analgesia. So far, this holds for intrathecal analgesia, but possibly for epidural analgesia as well. Unfortunately, there are a lack of data in this regard.

Finally, we would like to stress that we agree with the authors that reporting adherence to the ERAS program is essential, studies with an LOS>5 days may not be transferable to contemporary practice and further investigations to the role and dose of regional anesthesia are required. One should also consider what the comparator for future studies should be: systemic opioids should perhaps be substituted by intrathecal morphine as the golden standard of analgesia within an ERAS program.[2 3 5]

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