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# Comparing Analgesic Efficacy of Different Blocks After Laparoscopic Bariatric Surgery

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**Re: Elshazly M, et al.** The Feasibility and Efficacy of erector spinae plane block versus Transversus Abdominis Plane Block In Laparoscopic Bariatric Surgery: A Randomized Comparative Trial.

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### **Authors' Contributions**

All authors had carefully read the manuscript of *Elshazly et al*, analyzed their methods and data. **GX** suggested comment points and drafted this manuscript. **FSX** critically revised comment points and this manuscript, and is the author responsible for this manuscript. **TT** revised comment points and this manuscript. All authors had seen and approved the final manuscript.

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## Comparing analgesic efficacy of different blocks after laparoscopic bariatric surgery

### - Letter to the Editor -

By a randomized controlled trial that included 60 patients undergoing elective laparoscopic bariatric surgery, Elshazly et al. [1] compared postoperative analgesic efficacy of erector spinae plane block (ESPB) and transversus abdominis plane block (TAPB). They showed that the bilateral ESPB compared to the TAPB was more effective for intraoperative and postoperative analgesia. Given that use of a multimodal strategy including a nerve or fascial plane block to improve perioperative analgesia, enhance postoperative recovery and decrease opioid requirements is highly desirable for patients undergoing bariatric surgery [2], this study has the potential implications. Other than the limitations described by the authors in the discussion, however, there are several issues in this study that need further clarification and discussion.

First, postoperative pain was determined by the visual analogue scale (VAS). However, the readers were not provided the status of patients when pain level was assessed. The available literature indicates that pain intensity following bariatric surgery is higher during movement than at resting state [3]. We are concerned that this unknown factor would have confused the results of postoperative pain assessment in this study.

Second, the mean VAS score in the first 24 hours postoperatively was higher in patients receiving the TAPB compared to those with the ESPB. However, we noted that the mean VAS scores during the first 24 hours postoperatively in two groups were less than 3, with small standard

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deviations ( $2.78 \pm 0.34$  vs.  $2.32 \pm 0.12$ ). This indicates that most of patients only had mild postoperative pain. Furthermore, the maximal between-group difference of mean VAS scores during the first 24 hours postoperatively appeared at 20 minutes after extubation and was less than 1. Most important, this study did not assess and compare the patients' satisfaction with postoperative pain control by the TAPB and ESPB. On this basis, we cannot determine whether improved postoperative pain control by the ESPB compared to the TAPB should be considered as being clinically important.

Third, if postoperative pain VAS score was 4 or more, intravenous nalbuphine was used as the first rescue analgesic and intravenous ketorolac as second rescue analgesic, as needed. In the results, the authors only provided total nalbuphine consumptions during the first 24 hours postoperatively, but not ketorolac consumption. We were very interested in knowing whether none of all patients received intravenous ketorolac as second rescue analgesic. When between-group difference of postoperative analgesic consumption was compared, moreover, it is generally required that the dosages of all analgesics used for postoperative pain control should be converted into morphine milligram equivalent in oral or intravenous form, as performed in previous work assessing the efficacy of different analgesia modalities in patients undergoing bariatric surgery [2]. As the equianalgesic conversion factor of morphine and nalbuphine for postoperative analgesia is about 1 : 1.5, the net between-group differences in mean nalbuphine consumption within first 24 hours postoperatively in this study are only equivalent to 2.94 mg intravenous morphine. The available literature recommends that the minimal clinically important difference of morphine milligram equivalent for postoperative pain control is an absolute reduction of 10 mg intravenous morphine in

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the 24 hours [4]. Thus, we question the clinical significance of postoperative opioid sparing by the ESPB compared to the TAPB.

Finally, this study assessed the time for flatus or stool, but not other outcome variables of the enhanced recovery after surgery protocols for bariatric surgery, such as the incidence of postoperative nausea and vomiting, the time to early mobilization, the time to hospital discharge and quality of postoperative recovery [5]. Because of this design limitation, an important question that this study cannot answer is whether improved postoperative pain control and decreased opioid consumption by the ESPB compared to the TAPB can be translated into early postoperative benefits of obese patients undergoing bariatric surgery.

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