



Reply to a letter to the editor

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To the Editor:

We appreciate the comments from Biava, et al. on our article [1]. The aim of our study was to evaluate bleeding risk during and after cesarean section in parturients who conceived using IVF (in vitro fertilization) or ICSI (intracytoplasmic sperm injection). Our study showed that IVF and ICSI were not associated with increased risk of bleeding in cesarean section.

Biava et al. suggested that there might be a possibility that parturients in the control group have increased bleeding risk, and parturients in the IVF/ICSI group have lower bleeding risk, and this possible bias could have affected the results. We do agree that the parturients in the control group and those in the IVF/ICSI group have different characteristics due to their fertility backgrounds. However, appropriate exclusion criteria were used to control confounding and we believe the study population in both groups reflects the different fertility backgrounds well. Furthermore, we made every effort to control confounding in our study through matching and adjusting for a wide variety of potential confounders.

Regarding blood loss assessment, Biava, et al. suggested that determining estimated blood loss by comparing preoperative and post-operative hemoglobin could be a better option. Owing to the retrospective design of the present study, and the clinical practice at our institution, preoperative hemoglobin levels were not investigated, so we could

not use this method to determine blood loss in our study. Also, there is no single generally accepted approach to reliably quantify surgical blood loss [2]. We hope that future studies address this issue as well.

Data availability The data that support the findings of this study are available on request from the corresponding author MA.

Declarations

Conflict of Interest The authors declare that they have no competing interests.

References

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2. Jaramillo S, Montane-Muntane M, Capitan D, Aguilar F, Vilaseca A, Blasi A, Navarro-Ripoll R. Agreement of surgical blood loss estimation methods. *Transfusion.* 2019;59:508–15. <https://doi.org/10.1111/trf.15052>.

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