

# CORRESPONDENCE/LETTER TO THE EDITOR Letter to “Major postpartum haemorrhage after frozen embryo transfer: A population-based study”

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Letter to “Major postpartum haemorrhage after frozen embryo transfer:  
A population-based study”

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## MANUSCRIPT

Dear Editor,

I read with great interest the study evaluating the potential impact of Frozen-IVF on serious maternal outcomes such as postpartum hemorrhage (PPH) and reporting an increased risk of major PPH associated

with frozen embryo transfers in this patient group, based on data from a significant number of patients. However, I would like to express two concerns regarding the article.

ACOG (2017) defines postpartum hemorrhage (PPH) as the cumulative loss of 1000 mL or more blood within the first 24 hours after birth or bleeding accompanied by signs or symptoms of hypovolemia [1]. On the other hand, RCOG (2016) categorizes PPH into minor (blood loss 500-1000 cc) and major (blood loss greater than 1000 ml) [2].

The authors, however, have noted the unreliability of the definition of PPH based on the amount of blood loss. They have included patients in the regression analysis as PPH who received at least one unit of blood transfusion or those with records in computer-based hospital records indicating hysterectomy, uterine, or hypogastric artery ligation.

Both RCOG and ACOG have indicated that there is no definite criterion to initiate red blood cell transfusion in PPH and that the decision to provide blood transfusion should be based on both clinical and hematologic assessment. We fully agree with these guidelines. This is because in a pregnant woman with a high pre-delivery hemoglobin level, PPH may not always necessitate blood transfusion. Conversely, in a pregnant woman with a low hemoglobin level, even minimal postpartum bleeding can lead to symptomatic conditions, requiring blood transfusion for the patient.

Additionally, 34 patients in the fresh-IVF group and 29 patients in the frozen-IVF group were included in the analysis as PPH cases. Although the study had a substantial number of natural conception cases, the multitude of confounding factors influencing PPH limited the statistical reliability in the conducted multivariate analysis. Despite adjusting for placental pathologies in the regression, a more detailed examination of the placental pathology status in IVF patients experiencing PPH could have been beneficial.

## CONFLICT OF INTEREST STATEMENT

The author reports no conflict of interest.

## REFERENCES

- [1] Committee on Practice Bulletins-Obstetrics. Practice Bulletin No. 183: Postpartum Hemorrhage. *Obstet Gynecol.* 2017 Oct;130(4):e168-e186. PMID: 28937571.
- [2] Prevention and Management of Postpartum Haemorrhage: Green-top Guideline No. 52. *BJOG.* 2017 Apr;124(5):e106-e149. Epub 2016 Dec 16. PMID: 27981719.