



Letter to editor in response to: seasonal dynamic of cholecalciferol (D3) and anti-Muellerian hormone (AMH) with impact on ovarian response and IVF/ICSI

Xuzhi Liang¹ · Jiangtao Fan¹

Received: 17 March 2022 / Accepted: 6 April 2022 / Published online: 11 April 2022
© The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2022

To the Editor:

We read the excellent original study by Rogenhofer et al. [1]. They conducted a study recruiting 469 women to investigate 3-month quartile D3 fluctuations and the impact on anti-Muellerian hormone (AMH) and Assisted Reproductive Technologies (ART) outcome. They concluded that AMH was affected by season, and the peak of AMH was in autumn from August to the end of October, and the fertilization rate and total number of collected oocytes were positively correlated with D3 serum concentration. We would like to thank Rogenhofer et. al for their dedication to the preparation for the couples who need ART to reproductive. Nevertheless, we put forward the following suggestion that may strengthen the rigor of the results in this article.

As the authors described in the “ART procedure” section, “Data and measurements were evaluated in 3-month quartiles (1st August–31st October, 1st November–31st January, 1st February–30th April, 1st May–31st July) and impact on ART outcome was assessed.” and we can speculate that repeated measurement of variance analysis should be utilized [2]. Technically, repeated measurement of variance analysis should be performed if a variable is measured 3 times or >3 times. Furthermore, repeated measurement of variance analysis considers the effect of time factor (1st August–31st October, 1st November–31st January, 1st February–30th April, 1st May–31st July) on the result. However, repeated measurement of variance analysis was not mentioned in this study, which impair the reliability of data

analysis. If the repeated measurement of variance analysis had been applied, the results of this study might be more consistent with the actual one.

Acknowledgments This study was supported by the First Affiliated Hospital of Guangxi Medical University.

Author contributions XL: searched for literature and wrote the manuscript, JF: provided statistical support and helped to modify and edit the final version.

Funding None.

Declarations

Conflict of interest The authors have declared no conflicts of interest.

References

1. Rogenhofer N, Jeschke U, von Schonfeldt V, Mahner S, Thaler CJ (2022) Seasonal dynamic of cholecalciferol (D3) and anti-Muellerian hormone (AMH) with impact on ovarian response and IVF/ICSI. Arch Gynecol Obstet. <https://doi.org/10.1007/s00404-022-06419-1>
2. Park E, Cho M, Ki CS (2009) Correct use of repeated measures analysis of variance. Korean J Lab Med 29(1):1–9

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Jiangtao Fan
jt_fan2018@163.com

¹ Department of Gynecology, Guangxi Medical University First Affiliated Hospital, Nanning, Guangxi, China