Author’s response to reviews

Title: Age-specific values of Access anti-Müllerian hormone immunoassay carried out on Japanese patients with infertility: A retrospective large-scale study

Authors:

Tomoya Segawa (desktop@ams.odn.ne.jp; t-segawa@yumeclinic.net; tomosegal2267@gmail.com)

Kenji Omi (k-omi@yumeclinic.net)

Yoshiaki Watanabe (y-watanabe@yumeclinic.net)

Yaeko Sone (yaekomiumiu81@yahoo.co.jp)

Masaki Handa (m-handa@yumeclinic.net)

Masako Kuroda (makuroda@juntendo.ac.jp)

Osamu Miyauchi (o-miyauchi@yumeclinic.net)

Hisao Osada (h.osada.19@gmail.com)

Shokichi Teramoto (teramoto@yumeclinic.net)

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Author’s response to reviews:

Cover letter for resubmission

September 10, 2018

Dr. Ilary Ruscito,
Editor
BMC Women’s Health

Re: BMWH-D-18-00251
Age-specific values of Access anti-Müllerian hormone immunoassay carried out on Japanese patients with infertility: A retrospective large-scale study
Tomoya Segawa; Kenji Omi; Yoshiaki Watanabe; Yaeko Sone; Masaki Handa; Masako Kuroda; Osamu Miyauchi; Hisao Osada; Shokichi Teramoto
Dear Dr. Ruscito:

Thank you very much for your kind letter of August 27, 2018, informing us of your acceptance of our article on the condition that we carry out the essential revisions suggested by your reviewer. We have carefully gone through comments by Dr. Aeby and by yourself, and made the necessary corrections accordingly.

We hope our article now satisfies your standard.

I look forward to hearing from you.

Sincerely,

Tomoya Segawa, M.D., Ph.D.
Shimbashi YUME Clinic, Excel Shimbashi, 2-5-1, Shimbashi, Minato-ku, Tokyo 105-0004
Phone: 81-3-3593-2121   FAX: 81-3-3593-2122
E-mail address: t-segawa@yumeclinic.net

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Response to reviewer’s comment

Reviewer report:

Tod Charles Aeby, MD, MEd (Reviewer 1): This is an important study looking for racial differences in AMH levels by age. While the sample size seems sufficient, I have concerns about selection bias in the population studied. Given that this was a group of women seeking fertility treatment, one might assume that their AMH levels might differ from an age-matched group of reproductive age women randomly selected from a general Japanese population. Much in the same way that bilirubin levels at a hepatology clinic might not represent bilirubin levels in the general population and probably should not be used for determining "normal". That being said, close reading of reference #6 (Seifer et al), which seems to supply the current reference standards, shows that they also used a large number of randomly selected patients presenting to several Infertility Clinics throughout the United States. If we can assume that the Japanese and the US patients are otherwise similar, then the results would, at least, be compatible.

I have no concerns with the rest of the manuscript, but I feel that a discussion of this concern would make the paper stronger.

The authors used some abbreviations (PCOS, POI) that might not be familiar to the general BMC readership and they might want to spell them out, the first time they are used.
***Authors’ response***

We would like to express our gratitude for Dr. Aeby and Dr. Ruscito for going through our manuscript and providing constructive comments. We agree with Dr. Aeby’s observation that the population studied was a group of women seeking fertility treatment and that therefore their AMH levels may differ from an age-matched group of reproductive age women randomly selected from the general Japanese population. However, our study is mainly intended to present data concerning Japanese infertility patients and patients of a similar racial background with the hope that this data could be used for treating such patients, as well as prove a useful reference for further research with different populations.

As Dr. Aeby commented, the study carried out by Dr. Seifer and his colleagues (reference #6) also used a large number of randomly selected patients presenting to several infertility clinics in the United States. There are however several differences between that study and our present study. Apart from the patients’ background and its study design, the biggest difference was that whereas the study of Seifer et al. was carried out using the first generation AMH immunoassay, DSL, our present study was using the latest, the third generation AMH immunoassay, Access, which has many advantages over the first and second generation AMH immunoassays and are now beginning to be used widely.

As regards the comment on abbreviations, PCOS was spelled out the first time it was used (Background section, page 4, line 66). However, POI was not spelled out, as Dr. Aeby pointed out, and we have added the full term.

***Corrections to the manuscript***

We have added the following sentence in the discussion section as Dr. Aeby kindly suggested (Discussion section, line 205, page 12):

We are also aware that the data in this study does not represent the age-specific AMH levels in the general population and that comparison to that needs further study.

We have spelled out POI for the first time it appeared (Result section, line 126, page 7):

The percentage of PCOS and POI (premature ovarian insufficiency) patients was 7.0% and 0.3%, respectively.

***Corrections according to the editorial policies***

We have added a subsection, “Consent to publish” (Declarations section, line 234, page 13):

Consent to publish
There were no details, images, or videos relating to an individual person in this study. Therefore, written informed consent for publication of individual data was not obtained, although all the patients were informed that their data may be used for research.

We have also reformatted the list of references according to the journal’s referencing style (Reference section, line 270, page 15 – line 376, page 21).