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In women with transplantable euploid blastocysts, age does not affect transplant potential



TO THE EDITORS: The published study by Irani et al¹ entitled “Does maternal age at retrieval influence the implantation potential of euploid blastocysts?” was well designed. However, the grouping of morphological ratings may have some of the following issues: 2BC, 2CB, and 2CC were inconsistent in the *Methods* and abstract and lack the grouping of morphological ratings, such as AC, CA, and 1-2AA. More importantly, placing AB and BA in the same group may be controversial.

According to Nazem et al,² blastocysts with an inner cell mass grade of A had a greater odds of ongoing pregnancy/live birth (odds ratio, 1.5; 99% confidence interval, 1.1–2.0) and clinical pregnancy (odds ratio, 1.4; 99% confidence interval, 1.1–1.9) compared with B.

We further analyzed the trophoctoderm grade of A and B in this paper of Nazem et al² and found no statistically significant difference in any of the results between the 2 grades ($P > .05$; SPSS version 20.0). The abovementioned points indicate that it may be unreasonable to include AB and BA in the same group.

This may explain why the implantation rates of the excellent- and good-quality groups were not significantly different according to the grouping method of Irani et al¹, possibly because of the relatively small number of cycles in which excellent-quality blastocysts were transferred, as suggested by Irani et al.

With this in mind, a preliminary analysis including 94 frozen-thawed cycles from our own center was performed for verification. When grouping blastocyst morphological ratings according to the method of Irani et al,¹ we reached the same conclusion reported in their paper. However, after changing the grouping strategy, AB and AA were grouped together ($n = 37$), while BA and BB were grouped together ($n = 57$). A statistically significant difference in implantation rates was found between the 2 groups (75.7% vs 50.9%; $P = .016$).

This suggests that changes in morphological grouping strategies can lead to different results, and this may further affect the distribution of embryo quality across age groups. More importantly, AB may be a better choice for transplantation than BA, especially if no AA is available for transplantation. Although this remains to be verified, it may have a positive effect on improving the quality of the assisted reproductive cycle.

We hope that Irani and colleagues, as well as researchers at other centers with large data, could consider the previously

mentioned issues and further verify the effect of expansion grade on pregnancy outcomes proposed by Nazem et al.²

In addition, Irani et al¹ concluded that differences in spontaneous abortion at different ages were not statistically significant, but older women (>40 years) still showed an increasing trend that should not be ignored. In addition, euploid embryo transfer can help older women achieve live birth rates that are similar to those of younger women; however, this does not mean that their pregnancy qualities are comparable. Other pregnancy outcomes for older women, such as preterm birth and low birthweight, should also be assessed.

Finally, the study included only those cycles from women with surviving euploid embryos for transplantation after biopsy and freeze-thawing,¹ which limits the study population. Therefore, we believe that the conclusion should be that age does not affect the implantation potential of the embryo among women with a transplantable euploid blastocyst. ■

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REPLY



We appreciate Drs Y. Guo, S. Guo, and Zhang for their interest in our work. After studying the role of blastocyst morphology in selecting among euploid embryos, we have demonstrated