

Is there any correlation with adnexal torsion and fecundability?

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DEAR EDITOR,

We read the article entitled “Does ischemia reperfusion affect fecundability in a rat model?” published in the June issue of the *Journal of the Chinese Medical Association* with interest.¹ Dr. Calis et al tried to evaluate the fecundability after ovarian torsion in a rat model.¹ The authors found that there was no statistically significant difference of pregnancy rate of rats with 8- and 24-hour ovarian torsion (20% vs 30%), but statistically significant difference of pregnancy rate of rats with and without ovarian torsion (25% vs 70%). Based on the above mentioned findings, the authors concluded that patients with ovarian torsion but treated with detorsion should be further investigated for their fecundability potency and be informed accordingly. We congratulated the authors’ successful publication. We have some questions about this article.

First, we do not understand why the authors used the beta-human chorionic gonadotropin (beta-hCG) to detect pregnancy rate of rats, although the measurement of the beta-hCG is a well-known tool to detect normal and abnormal pregnancy.^{2,3} The results of Calis et al showed that the mean beta-hCG values in the control, 8- and 24-hour groups between pregnant rats were 19.8 ± 26.02 , 11.7 ± 0.17 , and 22.97 ± 11.87 mIU/mL, respectively.¹ Based on our limited knowledge, it is hard to believe how the authors calculate the mean \pm standard deviation from two rats in the 8-hour group.

Second, it is interesting to find that rats in the 8-hour group seemed to have a lowest value of beta-hCG than rats in control and the 24-hour group did, although the authors did not perform the statistical analysis. It is well known that serum beta-hCG is positively correlated with gestational days in the very early pregnancy, and it is often used to define the clinical pregnancy rate in the assisted reproductive techniques.^{4,5} Therefore, we totally agree with the authors’ strategy to use this measurement to confirm the clinical pregnancy rate of rats. However, did the value of beta-hCG present the number of fetuses in pregnant rat? In addition, if the authors would like to test their hypothesis, “does ischemia-perfusion affect fecundability?” and why the authors did not complete the reproductive cycle of the rats?

In fact, rat is a multiple pregnancy animal model, and the size of litter or number of litter might be a better tool to evaluate the fecundability.⁶ If the ischemia reperfusion indeed influences the fecundability, we supposed that litter size or litter number would be significantly smaller or decreased. The above-mentioned question does not criticize the value of the current article and hope that the authors could have a positive response.

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