Without mating test, it is hard to say that the reproductive performance of rats is decreased

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We read the recent article entitled "A comparative study of eugenol and Ocimum sanctum linn, leaf extract on the antifertility effect in female albino rats", which has been published in the *Journal of the Chinese Medical Association* with interest.[1] We are also happy to learn about the editors' comment to this article.[2] Drs. Poli and Challa found that rats treated with eugenol (EUG) had significantly increased duration of cycles compared with those without treatment and treated with Ocimum sanctum (OS) Linn. (Tulsi) leaf extract (125, 107, and 112 h, respectively).[1] The authors found that estradiol and progesterone might play a role for the prolonged cycle time in rats treated with EUG, because of significantly higher levels of estradiol and progesterone in these EUG-treated rats than those without treatment and treated with Tulsi (estradiol 21.2, 11.4, and 11.0 pg/mL, respectively, and progesterone 126.7, 85.4, and 103.2 ng/mL, respectively).[2] Therefore, the authors concluded that the administration of EUG and Tulsi significantly enhanced the serum levels of estradiol and progesterone to result in the prolonged cycle with subsequently reduced frequency and impairing fertility.[1] We congratulated the success of the publication. The followings do not criticize the scientific value of current article, but we hope to have a positive response.

First, as shown by the editor's comment,[2] is there any difference of ovulation between 4-day cycle and 5-day cycle in Drs. Poli and Challa's study?[1] In addition, since the authors could clearly demonstrate the interval of every cycle, such as 14 h in proestrus phase, 16 h in the estrus phase, and so on, the authors did not clearly show the time (which phase of cycle) they collected the blood serum for hormone study.

Second, to clarify the subfertility or antifertility effect, the mating test had better be performed, because this design could give a result about the litter size and the number of litters in rats, which is really reflective of the reproductive performance of rats or mice.[3,4] Of most importance, this design does not spend much time. In fact, <6 months could be finished. If the authors' claims are true, we can expect that the rats treated with EUG and/or Tulsi or combination may have a smaller litter size or the fewer number of litters than those without treatment may.

Finally, medicinal plants have been used in long term to influence the reproductive performance, and their effects can be enhanced or impaired;[2,5,6] however, the use of natural compounds is much more attractive in certain countries or for certain culture. Based on inadequate data supporting to the authors' conclusion, we are looking forward to seeing the response by authors.

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